Clinical Remarks

ON A CASE OF

MEDIASTINAL CANCER, WITH APHONIA FROM LARYNGEAL PARALYSIS.

USE OF THE LARYNGOSCOPE.

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GENTLEMEN,—The case to which I wish to call your attention might easily, when it first came under observation, have been mistaken, on superficial examination, for one of subacute phthisis with laryngeal complication. It is another instance of the value of the laryngoscope as an aid to the diagnosis of certain forms of intra-thoracic disease.

The patient, a married woman, thirty-seven years of age, came to the Brompton Hospital at the end of last May, complaining of cough, shortness of breath, loss of flesh, and night-sweatings. She stated that her illness commenced about five months ago, when she began to suffer from breathlessness and cough, attended with an abundance of white frothy expectoration. She had also suffered from pain in the left side, which lasted about a month, and then disappeared. She has had no return of pain anywhere since.

During the last week or two she has been losing flesh rapidly and sweating much at night, and recently she has noticed a sense of obstruction in the throat, with gradually increasing hoarseness. Her father died of "asthma" at seventy-eight years of age, her mother is alive and healthy, and so are the other members of her family. She has had two children, and they are alive and well. The only previous illness from which she herself has suffered was an attack of scarlet fever seven years ago. After a few weeks attendance as an out-patient at the Brompton Hospital, as the case was one of much clinical interest, I had her admitted under my care into King's College Hospital. There the following notes were taken.

She is an emaciated woman, pale, but not sallow, lying on her left side, and speaking with a hoarse, muffled voice. Respiration, abdominal, 24; pulse 108, soft and regular; tongue slightly furred; temperature 100° F. On examining her chest it is observed that there is very little inspiratory expansion on either side, that there is a barely perceptible fulness between the clavicle and the fourth rib on the left side, most marked opposite the second costal cartilage. There is dulness on percussion over the whole of the left lung from apex to base anteriorly and posteriorly; vocal fremitus entirely absent. The respiratory sound is everywhere weak, harsh, and blowing, and occasionally accompanied with a faint expiratory rhonchus. In the lower part of the left mammary region the breathing is almost cavernous, and there is distinct bronchophony at that spot. There is a faint friction sound heard at the left base behind. On the right side the resonance is good anteriorly and posteriorly; and harsh sonorous rhonchi, mixed with vesicular murmur, are heard all over the lung. The right half of the chest looks a little larger than the left, and measures fourteen inches and a half, an inch more than the left half in circumference, the measurement being taken on a level with the third rib. The heart-sounds are normal, but the apex-beat is displaced a little upwards, to the fourth interspace. It was noted later that the superficial veins on the left side had become somewhat distended, and that in the left supra-clavicular region there had appeared masses of small, hard glands. The cough soon became exceedingly troublesome, and there was much frothy tenacious expectoration, occasionally mixed with a considerable quantity of blood. She complained also of much difficulty in swallowing solid food, and any attempt to swallow brought on a paroxysm of coughing. On laryngoscopic examination the vocal cords were seen to be white and natural, and free from any thickening or ulceration, but the left vocal cord was flaccid and motionless in a position between adduction and abduction. She became rapidly weaker, and died from exhaustion eighteen days after admission into the hospital.

As the patient's death took place when I was out of London, I am indebted to Dr. Urban Pritchard, pathological registrar of King's College Hospital, for the following account of the post-mortem examination:—

"On opening the thorax, a tumour about the size of a large shaddock was found to occupy the whole of the upper part of the mediastinum, pressing upon and displacing the upper lobe of the left lung, and adherent to it at one spot. This mass consisted of the bronchial glands (enlarged by medullary carcinomatous deposit), surrounding and enclosing the bifurcation of the trachea, the left bronchus, and the large bloodvessels connected with the heart, except the venæ cavæ. The trachea was twisted about one quarter round, so that the posterior flattened surface looked to the left side. The left bronchus was entirely surrounded by the cancerous mass, and almost closed by its pressure. The right bronchus was quite free. Opposite the bifurcation of the trachea the tumour pressed on the œsophagus, and a portion, about the size of a small walnut, projected into the canal; this projecting mass was beginning to soften. The arch of the aorta and upper thoracic portion were displaced forwards and to the left with a slight twist; this portion of the aorta, together with its large branches, were more or less embedded in the cancerous mass. The left vagus was to a slight extent involved in the tumour just above the upper margin of the aortic arch, and its recurrent laryngeal branch passed right through the mass, being traced through it with great difficulty. Above the tumour in the neck this nerve was much smaller than its fellow of the opposite side. The right recurrent nerve was quite free. There was no apparent difference in bulk in the laryngeal muscles on either side. The lower cervical glands on the left side were much enlarged by cancerous deposit. The left lung was somewhat collapsed, and contained several nodules of carcinomatous structure in its substance near the general cancerous mass. The right lung was sound. The heart was healthy, but the upper part of the pericardium was adherent to the cancerous mass. There were no cancerous deposits found in any of the other organs."

We had very little difficulty, when this case came into the hospital, in diagnosing the existence of a malignant growth in the mediastinum; but before the appearance of the enlarged and indurated cervical glands, and in the absence of laryngoscopic exploration, the case might easily have been mistaken (and, indeed, had been) for one of subacute phthisis. The rapid emaciation, the nocturnal perspirations, the cough, the spitting of blood, the dyspnœa, the moderately high temperature (100° F.), the fair complexion, and the hoarseness of voice, formed a group of symptoms perfectly consistent with the existence of somewhat rapidly progressing pulmonary tuberculosis.

When, however, I made a physical examination of the chest, I at once pointed out that it was a most unusual circumstance to find so great and uniform dulness—extending over the whole of one lung—in progressive phthisis, without the coexistence of moist râles in some part of the lung. It is quite common in cases of phthisis to hear no moist sounds while the patient is breathing quietly, but they can usually be developed in some parts by causing the patient to cough, and so agitating the contents of the air-cells and bronchial tubes. A case of advancing phthisis of five months' duration, which has led to the consolidation of the whole of one lung, will invariably be found to have induced softening in some parts, and the accumulation of products of ulceration and inflammation in some of the air-cells and bronchia; and these changes would naturally be attended by the presence of moist râles over some portions of the lung. But in this case, with dulness over the whole of the left lung, we had nothing but feeble breath-sounds, somewhat harsh and tubular in places. Examination with the laryngoscope confirmed the impression that we had not to do with a case of phthisis. The larynx presented none of the changes which are commonly found in connexion with tuberculosis; but, on the other hand, we saw that the left vocal cord was paralysed. In attempts at vocalisation the right vocal cord was advanced perfectly to the middle line, while the left remained flaccid and motionless, midway between adduction and abduction. We thus had direct evidence of the existence of pressure in the course of the left recurrent laryngeal nerve, and, coupled with the other

physical signs, there was no room for doubt that this was due to the existence of a tumour within the thorax. The subsequent enlargement of the cervical glands, and the distension of the superficial veins (which, however, was not at any time very marked), gave additional confirmation to this view. We could judge, also, from the course of the case, and the mode of evolution of the symptoms, that the new growth had commenced in the *posterior* part of the mediastinum—involving first the bifurcation of the trachea and the œsophagus, then extending forward to the neighbourhood of the large vessels, implicating the left recurrent nerve, and finally beginning to exercise slight pressure upon the large veins. Had the tumour commenced its growth in the *anterior* part of the mediastinum we should probably have had symptoms of venous pressure developed early, and the evidences of pressure on the recurrent nerve, on the trachea and œsophagus, might have supervened late in the history of the case.

The clinical history of intra-thoracic growths, upon which so much light has been thrown by the able researches of Dr. Risdon Bennett, has now attained considerable completeness, and their diagnosis, hitherto confessedly so difficult, is at present approaching something like precision and certainty. The tendency of many of these cases to simulate, as this one did, the clinical aspects of somewhat rapid phthisis, has been pointed out by Dr. Risdon Bennett, Sir Thomas Watson,* Dr. Murchison, and others; but I am not aware that anyone, in this country at least, has hitherto demonstrated a paralytic affection of the vocal cords as observed accompanying intra-thoracic cancer. Dr. H. Rendu, however, in an able summary of what has been written on the subject of malignant tumours of the mediastinum, in the *Archives Générales de Médecine*, 1875, mentions Rossbach† as having published some cases "altogether exceptional," in which "temporary aphonia" was an early symptom. He adds: "This observation of Rossbach I believe to be unique up to the present time; and this mode of *début* must at any rate be very rare, for in the regular course of mediastinal tumours the pneumogastric nerves and the recurrents are ordinarily the last to be invaded, and for a very long time they escape the causes of compression."

It has been said that in these cases of mediastinal tumour the patients usually complain of a fixed, circumscribed pain behind the upper third of the sternum, and that this is of diagnostic value, and precedes the other symptoms. In the above case, and in another case of intra-thoracic cancer which I published in March, 1875, there was never any complaint of local pain while the patients were under observation. It has also been noticed that the appearance of blood in the expectoration is usually significant, as it was in this case, of the secondary formation of cancerous nodules within the lung itself. The chief point of interest, however, in this case, and that to which I wish to call attention in placing it on record, is the aid which was afforded us in our diagnosis by the use of the laryngoscope, whereby we were enabled at once to discover that the loss of voice was not caused by intrinsic disease of the larynx itself, but by disease within the thorax interfering with the innervation of the laryngeal muscles.

THE TREATMENT OF ACUTE RHEUMATISM BY SALICIN.

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THE treatment of acute rheumatism is so varied and unsatisfactory, that any new method or novel therapeutic agent is sure of attracting much attention, and the discovery of any means of arresting the course or diminishing the complications of so common and perilous an affection cannot be too highly appreciated. Dr. Maclagan's success with salicin is so very remarkable that it is incumbent on other physicians to state their experience of this remedy. Whilst in temporary charge of the medical wards at the Seamen's Hospital, I treated four cases of well-marked rheumatic fever on this plan, and I purpose giving a short abstract of these cases and the results. I am indebted to Mr. A. G. Lacy, the acting house-physician, for the notes.

CASE 1.—R. W. V——, aged twelve, was admitted on May 1st, 1876, with considerable effusion into both knees and ankles, and complaining of great pain and tenderness in those joints and in the hips. He presented the ordinary symptoms of a moderately severe attack of acute rheumatism, and had been ill for six or seven days previously. A systolic bruit was plainly audible over the apex of the heart, but this was probably due to a former attack from which he had suffered four years previously. His temperature was 101° on admission, 101·4° at night, and 102° on the following morning. He was then ordered salicin in ten-grain doses every two hours. Two days after the administration of the remedy his temperature fell to 99°, and the pain was much less, and in five days from his admission he was practically convalescent.

CASE 2.—J. H——, aged twenty-three, was admitted on June 19th, 1876, with an attack of much the same severity as the preceding. He had been ill for two days only, and the joints affected were the knees, ankles, and wrists. His temperature on admission was 100·6°; it rose at night to 101·2°, and the next morning and evening was at 101·6° and 102° respectively. From this time he began to improve. His temperature fell to 101° and became normal on the sixth day after admission. Salicin in ten-grain doses every two hours was administered from his admission. There was no cardiac complication, although the heart's action was at first very rapid and irregular, but it soon quieted down. It was his second attack, and the first had lasted for six weeks under treatment in a hospital.

CASE 3.—C. B——, aged twenty-three, was admitted on June 16th, 1876, with an attack of acute rheumatism affecting his right knee and elbow. His temperature was 102°, and fluctuated between 101° and 102·4° for the next three days, during which period he was taking salicin in fifteen-grain doses every two hours. On the 20th the evening temperature rose to 103°, but from this period the disease gradually subsided, and on the 25th the temperature was normal. There was no cardiac complication.

CASE 4.—M. L——, aged twenty-two, was admitted on July 8th, with well-marked symptoms of rheumatic fever. He had been ill for six days, and had very extensive effusion into both knee-joints, the left especially. His ankles, wrists, metacarpal and phalangeal joints were red, swollen, and exquisitely painful. On admission his temperature was 101·8°, pulse 108, and respiration 32. At night his temperature was 102°, and on the next morning it had fallen to 100·6°. The apex of the heart was displaced downwards and outwards, and a systolic bruit was heard over it. He had suffered from two attacks previously, one lasting thirteen weeks, and the other four weeks. Salicin was ordered on his admission, in doses of ten grains every two hours. On the 10th the dose of salicin was increased to fifteen grains, and on the 11th to twenty grains every two hours. The swelling in the knee-joints had much diminished, but he had slept badly, and his general condition had not improved. His temperature was fluctuating between 102° and 103°, his pulse had risen to 120, and his respiration to 40. On the 12th he was covered with sudamina, the heart's action was irregular and tumultuous, and on the 13th a distinct pericardial friction was heard. His urine was now alkaline, but it contained no albumen. On the 14th the rub had increased in intensity, and its loud grating to-and-fro character enabled it to be felt as well as heard, whilst the area of the cardiac dulness was also a little enlarged upwards and laterally. He now complained very much of acute pain in the cardiac region, which was relieved by the application of three leeches. The salicin was still continued; poultices had been applied to the chest from the commencement of the pericarditis, and the joints wrapped in cotton-wool throughout the disease. On the 18th the pain in the chest had entirely ceased, but the cardiac dulness was still exaggerated, and the friction-sound loud and grating. The wrists and fingers were still swollen and tender, but the other joints were free from pain. The salicin was now stopped, a blister was applied over the cardiac region, and six ounces of brandy were administered daily; no other drug was given. On the 21st the rub was less distinct, the temperature, pulse, and respiration began to lessen, and the brandy was diminished. From this time

* Path. Soc. Trans., 1868. † Dissert. Inaug., Jena, 1869.

a tedious recovery took place, and on the 28th the temperature became normal, but his convalescence was very prolonged.

The first three cases seemed to indicate that the salicin treatment was the true desideratum in this affection; but in the last case, the absence of any relief whatever, the supervention of a very acute pericarditis, the powerlessness of the remedy against this complication and the attendant fever, must make us hesitate before we finally accept Dr. Maclagan's dictum—"that it (salicin) seems to arrest the course of the malady as effectually as quinine cures an ague or ipecacuanha a dysentery; that, given sufficiently early and in sufficient dose, it prevents these (cardiac) complications; and that its free administration is the best means of staying their progress after they have occurred."* No objection can be taken as to the sufficiency of the dose, for the salicin had been so freely administered that the patient had taken over 800 grains in the five days before the friction-sound appeared, and his heart was most carefully examined two or three times daily. I would incidentally point out that the urine became alkaline after the illness had existed for some days; and I have noticed a similar condition in other cases of acute rheumatism even when treated by mineral acids or by expectants. This must make us cautious in any inferences into which we may be led as to the effect of our drugs upon the urine in this disease.

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GUNSHOT INJURY TO THE MUSCULO-SPIRAL NERVE.

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In the summer of 1875 a gentleman was returning after a shooting excursion in a bay off the coast of Nova Scotia. On account of the lowness of the tide, the boat grounded about twenty yards from shore; so, stepping on to one of the bow thwarts, he tried with a heavy oar to shove the boat out into deeper water. He had, for what he considered to be safety, previously placed his gun in the bows of the boat with the muzzle pointed skywards. From some cause or other the gun went off, and the charge of shot entered the inner side of the uplifted and half-bent arm. The charge passed in its course the ball of the thumb, which was thus charred, and then grazed and burnt a great part of the radial border of the forearm, and, having gone through the lower part of the biceps, effected its exit a few inches above the outer elbow. The arm at once dropped helplessly. It seems that a considerable quantity of blood was lost. The wounds themselves were comparatively painless, and the only suffering appears to have been caused by the energetic application of compresses above and below the wound.

As the station in which the accident occurred was very out of the way, it was not until the evening of the following day that a surgeon, Dr. G. E. Buckley, arrived, and he, after a slight examination, thought it advisable to do nothing until the next morning. He then advised amputation; but the patient being strongly opposed to this, Dr. Buckley administered an anæsthetic and cleaned and dressed the wound, cutting away the damaged skin and muscle. After this, dressings were daily applied, and the patient informs me, in the graphic notes of his case with which I have been furnished, that there was a wound above the elbow large enough to receive the fist, and that the (arterial) pulsations could be marked. The patient was on his back for four weeks, and at one visit Dr. Buckley extracted nineteen flattened shot-corns.

The first wound to heal was that of the thumb, then that of the forearm. At about the tenth week the wound of exit had closed, and much later on that of entrance of the charge; one sinus remained open until last March. The limb was kept lying across the chest.

In June last the patient came to England for further advice, and at this time the only movement of which the injured limb was capable was flexion of the metacarpal bone of the thumb, every office which was formerly discharged by the right hand devolving upon the left.

At the end of July he was fortunate enough to come under the care of Dr. Kellgreen, of 85, St. George's-road, Pimlico, who is the director of the Swedish Institution for the Cure of Disease by Manual Treatment.

My connexion with the patient is merely this: he had a letter of introduction to Dr. Broadbent, who sent him on to me, knowing that I should be interested in the case. I carefully examined him on October 11th, and took the following notes:—

The extremity is much wasted. The forearm and hand are ever in the prone position, and the fingers are almost straight. There is a small scar over the ball of the thumb, and a large jagged one along the radial side of the forearm. The middle of the bicipital region is occupied by an extensive and irregular puckering, the scarred surface in places being red and hard. It showed where the charge had passed through the limb, destroying in its course the chief part of the biceps. Some of the deepest fibres of this muscle still remain, and have an evident connexion with the tendon and the semilunar fascia. The chief part of the muscle stands out prominently above the laceration, and there the arm measures nine and a half inches in girth, whilst immediately below—that is, around the cicatrix—the circumference is only seven inches. Fair pulsation can be made out in the brachial artery as far as the wound, but under the scar the pulsation is much diminished, and not much greater than that in the inferior profunda whose course can be clearly traced out. (As the patient is very thin, the course of the inferior profunda can also be followed in the sound limb.) The circumference of the left forearm just below the middle exceeds that of the damaged arm in the corresponding situation by three-quarters of an inch. The girth of the limb at the seat of the large scar is two inches and a half less than that of the opposite side in the corresponding situation.

The musculo-spiral nerve has evidently been lacerated; the mass of supinator longus cannot be detected, nor is there any power whatever of supination of the hand nor extension of the wrist. There is the scar of an old sinus at the situation of the musculo-spiral nerve, where it winds around the outside of the humerus; there the bone is only covered by integument and a cluster of shot-corns, and when these hard bodies are pressed towards the bone, the patient volunteers the information that he feels pain over the back of the hand and fingers. For some time after the accident there was no sensation over the back and outer side of the forearm, but now he there feels a pinch like the sensation that would be caused by a red-hot iron. Gentle friction is agreeable. There is still numbness over the back of the hand; he has no power over the extensors of the thumb or fingers; he has great strength in the pronator radii teres and the flexors of the wrist and fingers. The median nerve lying alongside of the brachial artery seems to have escaped injury.

Lastly, I must refer to the method of treatment to which he is submitting himself. Every week-day he attends Dr. Kellgreen for an hour, and this gentleman puts the damaged limb through all kinds of well-directed gymnastic exercises. By the courtesy of Dr. Kellgreen I was enabled to watch the course of treatment adopted. When the patient first attended he had no power or use in the limb whatever; now he can perform certain movements with it, and is steadily improving. The Doctor says that if—as regards extension of the wrist—he were to take the hand and flex and extend it rapidly he might keep on at it for an indefinite time, but that the hand would still remain "lame." So he bends the wrist, and exerting slight resistance, instructs his pupil to try to extend. This he does slowly, so that the patient may bring all his strength of will to act through the medium of the nerve which supplies the muscles. After spending some time in this exercise he places a book in the damaged hand, and he himself holds up the wrist in a vertical position. Then, having fixed all the patient's attention on the book, he says, "Lower the book slowly." So the book and hand bend slowly forwards, till, with a trembling at the back of the wrist, it seems as if the extensors can no longer struggle against the weight. Then he stamps on the floor, and making use of some

* THE LANCET, Oct. 28th, 1876.

strong Scandinavian words (the meaning of which I can only imagine), I could see the muscles struggling against the weight to bring up the hand again. After a few minutes, the muscles, which are thus undergoing a course of fresh education, give way through sheer exhaustion, and the patient, by a seemingly fearful effort of the will, has gained a step on the road to recovery. Then the Doctor works over the course of the nerves with the nail of his thumb or finger, and seems to find them out with unerring precision; the result of this manipulation being the feeling, as it were, of an electrical shock through the different series of muscles to which the nerve is distributed. It is worthy of remark that, since this patient has been under Dr. Kellgreen's manipulative and educational treatment, about twenty-four shot-corns have worked their way up to the skin out of the deeper tissues. From September, 1875, to March, 1876, surgeons had sought constantly for them, but without success. Exercise has evidently brought them out. Whether galvanism could have brought about such a result or not I cannot say; but of this I am sure, that no other method of treatment than that which has been adopted could have been attended with better results.

I saw other cases during my visit which are of great interest as regards treatment and result, but it is impossible to speak of them here. I came to the conclusion that Dr. Kellgreen's method of treatment must be in certain cases of extreme value; and I feel sure that many a busy practitioner would be glad to know where such honest and skilful manipulative treatment may be obtained, and where nerves and muscles which have from any cause been thrown out of working order may obtain a course of education which may restore them once more to their sphere of usefulness.

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ON THE EXPECTANT TREATMENT OF CHOREA.

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NEARLY five years have elapsed since we published in this journal* a series of cases of chorea, in the treatment of which all medicines had been withheld, and reliance had been placed solely on nursing and good diet. We then showed by a comparison of the average duration of our cases with the average duration of cases treated with arsenic and other routine drugs, that the expectant treatment was at least as successful as the treatment by medicine. Since that time we have continued to work in the same direction, and are now able to record twenty more cases, in which the whole natural duration of the disease uninfluenced by medicine has been accurately estimated. In every instance the parents or friends were closely questioned as to the earliest appearance of twitching, and the patient was kept under observation till all irregular movements had ceased. We propose to give, as before, only a brief *résumé* of the clinical history of each case; and, in order to avoid repetition, we would state at the outset that the best diet of the hospital was given to all alike, and, in place of medicine, an occasional dose of sugared water or carraway water, as a placebo.

(Under the care of Dr. GRAY.)

1. Girl, aged fifteen. First attack, bilateral, mild. For the first ten days after admission high temperature (100°—102°); basic systolic murmur, which ceased to be heard as the chorea got well. Duration before admission, four weeks; movements ceased five weeks after admission: total duration, nine weeks.

2. Boy, aged fourteen. First attack, bilateral, mild, supervening upon a fortnight's attack of subacute rheumatism in knees, ankles, and loins. Father said to have had rheumatic fever, and one sister said to be epileptic. No cardiac murmur. Duration before admission, three weeks; movements ceased eight weeks after admission: total duration, eleven weeks.

3. Girl, aged nine. First attack, bilateral, mild. Mother had had rheumatic fever, and an aunt had been choreic at the same age. No cardiac murmur. Duration before admission, three weeks; movements ceased six weeks after admission. The child was still, however, kept under observation. For the next fortnight she had, together with a systolic murmur at the apex (constant in the recumbent, but disappearing in the erect position), an attack of erythema papulatum, very symmetrical, first on the legs, then on the arms; also a whitlow on one thumb. At the end of three weeks, the erythema having subsided, chorea returned sharply, with a rise in the temperature, excited action of the heart, and a systolic murmur at apex and base, audible in the recumbent, doubtfully audible in the erect posture. At the end of another nine days this second attack of chorea had quite subsided, the murmur remaining much as before, and still dependent on posture. Total duration, including the relapse, thirteen weeks.

4. Boy, aged sixteen. First attack, moderately severe, affecting chiefly the facial and respiratory muscles, and the right limbs more than the left. No history of rheumatism. On admission, a slight basic, systolic, cardiac murmur was heard, which ceased to be audible after a few days. Duration before admission four weeks; movements ceased six weeks after admission: total duration, ten weeks.

5. Girl, aged twelve. First attack, bilateral, mild. A brother had been choreic. Mitral systolic murmur for several days after admission. Duration before admission, three weeks; movements ceased six weeks after admission: total duration, nine weeks.

6. Boy, aged nine. First attack, bilateral, mild. No history of rheumatism, no cardiac murmur. Duration before admission, two weeks; movements ceased four weeks after admission: total duration, six weeks.

7. Boy, aged seven. First attack, left hemichorea, mild. No history of rheumatism. For several days the heart's action was excited, and the impulse increased, but no murmur was heard. Duration before admission, two weeks; movements ceased three weeks after admission: total duration, five weeks.

8. Woman, aged twenty-six; married four years; never pregnant, and still menstruating regularly. First attack, general, moderately severe. No history of rheumatism, but the chorea was attributed to fright. On admission a systolic murmur was heard at the apex, but was scarcely audible when she was discharged cured. No albumen in the urine. Duration before admission, five months; movements ceased one month after admission: total duration, twenty-four weeks.

9. Boy, aged eleven. First attack, bilateral, rather severe; supervening on an attack of acute rheumatism. Mitral systolic murmur heard throughout. Duration before admission, three weeks; movements ceased ten weeks after admission: total duration, thirteen weeks.

(Under the care of Dr. TUCKWELL.)

10. Girl, aged twelve. First attack; left hemichorea, moderately severe. She had had at times pains in the joints, and her mother had had rheumatic fever. No cardiac murmur. Duration before admission, four days; movements ceased in from seven to eight weeks after admission: total duration, eight weeks.

11. Girl, aged four. First attack, general, moderately severe. No history of rheumatism in the child or her parents, but her aunt had had chorea when young. Loud systolic mitral murmur, heard plainly beneath the scapula, becoming less loud as the chorea abated, but not disappearing after recovery. Duration before admission, ten days; movements ceased twenty-five days after admission: total duration, five weeks.

12. Girl, aged eleven. Third attack, general, mild. She had suffered repeatedly from severe pain in the joints. No cardiac murmur. Duration before admission, four weeks; movements ceased five weeks after admission: total duration, nine weeks.

13. Girl, aged nine. First attack, general, moderately severe; began with pains in the wrists and ankles. Loud mitral systolic murmur heard beneath the scapula, distinctly lessening in intensity as the chorea abated, but not disappearing after recovery. Duration before admission,

* THE LANCET, 1871, vol. ii., pp. 778, 814.

three weeks; movements ceased seven weeks after admission: total duration, ten weeks.

14. Girl, aged fifteen. Second attack; left hemichorea, mild. No history of rheumatism. Short systolic murmur at apex, not heard beneath the scapula, becoming less distinct as the chorea abated, and finally disappearing. Duration before admission, one week; movements ceased seven weeks after admission: total duration, eight weeks.

15. Boy, aged thirteen. First attack; right hemichorea, moderately severe. Had painful swelling of the right ankle shortly before the chorea began. Mother rheumatic. Short systolic murmur at apex and base, both of which ceased to be heard as the chorea got well. Duration before admission, four weeks; movements ceased nine weeks after admission: total duration, thirteen weeks.

16. Girl, aged nine. Second attack, general, mild. No history of rheumatism. No cardiac murmur. Duration before admission, four weeks; movements ceased eight weeks after admission: total duration, twelve weeks.

17. Boy, aged thirteen. First attack, general, mild. Has had rheumatic swelling of the knees and ankles. An aunt had chorea when young. Blowing systolic murmur at the apex, not heard beneath the scapula; not changing its character as the chorea subsided. Duration before admission, two weeks; movements ceased three weeks after admission: total duration, five weeks.

18. Girl, aged fourteen. Second attack; right hemichorea, mild. No history of rheumatism. Systolic murmur at apex, disappearing gradually with the chorea. Duration before admission, ten days; movements ceased in from four to five weeks after admission: total duration, six weeks.

19. Girl, aged eleven. First attack, general, moderately severe. Had suffered from rheumatic pains in the joints for some weeks before admission. Her aunt and first cousin had suffered from chorea when young. Systolic murmur at apex, disappearing gradually with the chorea. Duration before admission, four weeks; movements ceased four weeks after admission: total duration, eight weeks.

The above are all instances of mild, or moderately severe, chorea. The following, which was under Dr. Tuckwell's care, is especially interesting, as showing the natural course of chorea in its very severe and violent form. Full notes of the case are therefore given.

20. A girl, aged nine, was admitted into the Radcliffe Infirmary on January 6th, 1872, suffering from a severe attack of general chorea. She was reported to have been ill only three days, the present attack being the first she had had. She had suffered, however, for some time before this illness from pains in the knees and ankles, though she had never had a regular attack of rheumatic fever. Her father was lying at the same time in the infirmary with a severe attack of rheumatic fever. Pulse 92; temperature the same evening, 99°; no cardiac murmur. She was ordered good diet, including minced meat and vegetables, and a little carraway-water three times a day.

Jan. 7th.—She had passed a very bad night, much convulsed, and screaming so as to disturb the other patients. The whole body was constantly and severely convulsed. The skin of the forehead, face, and ears was becoming eczematous, and the tip of the nose was getting fissured from friction against the pillow. Evening temperature 98·6°. The first sound of the heart at the apex was immediately preceded by a short presystolic murmur. She was placed in a ward by herself, in a large crib well padded all round with pillows. She was ordered to be fed every two hours with milk, bread-and-milk, eggs beaten up in milk, light pudding; and to have once in the day a plate of minced meat or fish and mashed potato. To continue the carraway-water.

8th.—She had passed a very bad night, delirious and very convulsed. All the salient parts of the body were becoming sore from friction. She complained much of headache, but had no pain in the joints. Pulse 88; evening temperature 98·4°. She had taken nourishment regularly, and her bowels had acted naturally.

9th.—She had dozed two or three times during the night for about half an hour at a time, but had then started up more violent and convulsed than before. The face, as well as the nose, was getting fissured. Pulse 70; evening temperature 98°.

10th.—She had passed another very bad night, screaming wildly, and terribly convulsed, so as to have once turned a complete somersault over the wall of pillows and the side of the crib on to the floor. When asked if she was in pain she put her hand to her head. Evening temperature 98·4°. The same short presystolic murmur was heard. She had continued to take food well.

11th.—She had had a natural sleep from 10 P.M. last night to 3 A.M. this morning. She had then started up again in a violent state of excitement, screaming, talking incoherently, and much convulsed. The choreic movements were, however, decidedly less severe. The lower lip, the cheeks, and nose were badly fissured. The backs of the wrists, the knuckles, the elbows, and the sides of the body were very sore and red, as if badly chapped. The body was very emaciated. Evening temperature 99·6°. No cardiac murmur could, on careful auscultation, be heard.

12th.—A remarkable improvement had taken place. She had slept during a great part of the previous day and at intervals during the night, and she was sleeping quietly at the time of the visit. No cardiac murmur could be heard. Evening temperature 98°. To continue the nourishment.

13th.—Still further improvement had taken place, and she had passed a quiet night. The chorea had abated in a remarkable manner, and, instead of being general, was limited to the face and neck, left arm and leg. Pulse 80; evening temperature 98°. The skin on the affected parts was beginning to heal.

From this time forth she made a steady recovery, and was discharged cured on Feb. 19th, the total duration of the attack having been forty-seven days.

Remarks.—In our former communication we showed that the average duration of chorea treated on the expectant plan was, as far as our observations had then gone, from ten to eleven weeks; and that the average duration of chorea treated with arsenic in gradually increasing doses, according to Begbie's plan, was likewise from ten to eleven weeks, the difference, if any, being slightly in favour of the expectant plan. We also compared these results with the estimate of Dr. Hillier, who, in his work on Diseases of Children, gives the mean duration of thirty cases treated with arsenic, &c., as "about ten weeks"; and with Sée's estimate of "sixty-nine days," as the average duration of 117 cases treated with various medicines.

Of the twenty cases above recorded, the average duration is found to be rather over nine weeks, a still more favourable result than that before given. Or, taking the average of the whole thirty-eight cases published in this and the previous paper, we find nine weeks and six days to be the average duration of chorea treated without medicine. It is singular that this corresponds with Sée's average to a day.

Case 20 is worthy of special notice, in that it presented to view many of the worst features of chorea in its fatal form. The convulsions, so violent as to jerk the child over a high wall of pillows, like a fish, on to the floor, the body sore and fissured from friction, the rapid wasting, the wild delirium—were just the symptoms present in other cases which we have seen die in this infirmary, when plied with all sorts of active medicines. A very noteworthy point is the rapid improvement which took place naturally on the ninth and tenth days of the attack. Had a believer in arsenic been called in on the evening of the ninth day, and ordered large doses of Fowler's solution, the return of sleep and subsidence of the convulsions would, doubtless, have been attributed to the arsenic or to any other drug—bromide of potassium, succus conii, Calabar bean, zinc, iron, chloral, chloroform, &c.—which might have been ordered at that lucky, or unlucky, moment. This natural and restorative sleep might well be compared to the sleep which ushers in recovery in delirium tremens, and comes best of itself when a patient is well nursed and nourished, and kept free from all kinds of narcotics. An isolated ward; a good nurse; a large crib, well padded round, and walled in with pillows; plenty of nutritious food, without stimulants,—on these we shall feel inclined to rely in the treatment of severe chorea, till we obtain more conclusive evidence than has yet been adduced that the disease can, in the slightest degree, be favourably influenced by any medicine as yet discovered.

STEPS are being taken with a view to the establishment of a Seamen's Hospital at Antwerp somewhat similar to the *Dreadnought* Hospital at Greenwich.

ON A MODE OF GENERATING SULPHUROUS ACID FOR USE AS A DISINFECTANT, &c.

BY THOMAS W. KEATES,

CONSULTING CHEMIST TO THE METROPOLITAN BOARD OF WORKS, ETC. ETC.

FROM the remotest time, burning sulphur has been employed to fumigate and purify infected air, and to destroy fermentative and putrefactive action. There is no agent more powerful in its effects than this. Unlike chlorine, it not only acts as a disinfectant or destroyer of disease-germs and of the results of putrefaction, but it is also a powerful preservative agent, and, like carbolic acid, is a preventive of chemical changes in dead organic matter of every kind.

Although the value of sulphurous acid is thoroughly understood, its use is necessarily limited by the difficulty which exists in the way of producing it in a form in which it can be readily applied. The ordinary method of generating it by burning sulphur is cumbrous and very uncertain, owing to the difficulty of keeping up the combustion; there are also many situations in which the process cannot be carried on at all, and under the best circumstances it is inconvenient and but little under control. The evolution of the gas from its solution in water is scarcely more convenient, while it is much less effective; indeed, it may be said that there is no ready, convenient, and easily controllable way of producing this valuable agent in use at present; and this is the more remarkable when it is considered what a ready and simple means we really have at hand for this purpose.

Most of the readers of THE LANCET are no doubt familiar, at least theoretically, with the substance called bisulphide of carbon. This is a compound of one atom of carbon with two atoms of sulphur (CS_2); it is a dense, mobile liquid, heavier than water, and intensely inflammable, burning in the air like spirit of wine. During combustion the constituents of the bisulphide combine with the oxygen of the air, producing sulphurous and carbonic acid gases; but as 100 parts contain, by weight, as much as 84 parts of sulphur, which will give, in burning, 168 parts of sulphurous acid, it will be seen that the volume of this gas from a given quantity of bisulphide greatly exceeds that of the carbonic acid, and is comparatively very large. Suppose the above quantities to be in grains: as 100 cubic inches of sulphurous acid weigh 68·5 grains, the 168 grains will measure upwards of 245 cubic inches, or about one seventh of a cubic foot, which is the volume of sulphurous acid obtainable from 100 grains of bisulphide.

The bisulphide of carbon can be burned in a common spirit lamp, and in that case the products are sulphurous acid and carbonic acid only, in relative proportion to the atomic composition of the bisulphide, as I have stated; but by a modification of the method of burning, the amount of sulphurous acid produced in a given time can be regulated to any desired extent.

It is a property of the bisulphide of carbon to dissolve in fat oils and hydrocarbon liquids, such as petroleum; so by mixing it with any one of these liquids and burning the mixture in a properly constructed oil or petroleum lamp, sulphurous acid will be generated with the other usual products of the combustion of such materials, and in proportion to the quantity of bisulphide present in the mixture of combustible liquids: any proportionate quantity of sulphurous acid can in this way be thrown into an atmosphere, and the action may be continued for any length of time.

As the sulphurous gas is generated *pari passu* during the combustion of the bisulphide, it diffuses itself in the air, which in a short time will become completely impregnated with it. In a room containing about 1300 cubic feet of air it was found that by burning 280 grains of the bisulphide the atmosphere was so far charged with sulphurous acid that it was impossible to remain in the room for more than a few seconds. In five minutes after the lamp was lighted litmus paper began to be reddened at some distance from it; in ten minutes the air had become very oppressive, and the litmus paper was reddened in the extreme corners of the room; in fifteen minutes the air was so charged with the gas that it could scarcely be breathed, and in twenty minutes it was unbearable. In that time, as I have said, 280 grains of bisulphide were consumed in a simple single-wick lamp.

Sulphurous acid generated in this manner can be applied with facility to the disinfection of any place or object. In the case of rooms in which infectious or contagious disease has prevailed, it is only necessary to light the lamp and allow it to burn until the atmosphere has become impregnated with the gas to any desired extent, and then to remove or extinguish it just like a common spirit-lamp. In the simple form of apparatus which I suggest for this purpose, the lamp is enclosed in a metal case, about three inches in diameter and eight or nine inches high, furnished with holes near the bottom for the admission of air, and others in the top for the emission of the sulphurous gas.* This can be conveniently moved about, and placed, while the lamp is burning, in almost any locality. Receptacles for infected clothing, or the clothes or linen used in connexion with disease, or carriages which have conveyed fever or other patients, can be thoroughly purified without difficulty and with very little trouble. For the disinfection of ships, too, the lamp is particularly suitable, as it can be carried into the remotest part of a ship and burned without the least danger, and with the certainty of effecting its object completely.

It must be observed that the bisulphide of carbon is extremely volatile, having its boiling point as low as 110° F.; it is therefore necessary that the lamp in which it is burned should be furnished with a well-fitting screw-cap, to prevent the liquid from evaporating, and at the same time to keep its peculiar odour from escaping. This odour is often very nauseous, but the bisulphide is now manufactured by Messrs. C. Price and Co., of Thames-street, so pure, that it possesses very little smell, and can be used without the least inconvenience.

Printing-house-square.

A Mirror OF HOSPITAL PRACTICE,

BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

UNIVERSITY COLLEGE HOSPITAL.

SARCOMA OF THE HARD PALATE; REMOVAL; RECOVERY.

(Under the care of Mr. CHRISTOPHER HEATH.)

PRIMARY tumours of the hard palate are not very common, and are mostly of an amyloid character. In his work on the Diseases of the Jaws, Mr. Heath refers to some cases of the kind, and also to some of epithelioma. We may note that the case of sarcoma of the palate reported in the "Mirror" of THE LANCET of April 15th, 1876, is still living, and that the patient has been able to dispense with his tracheal tube. The notes of the following case were taken by Mr. A. P. Gould, surgical registrar.

S. E——, aged forty-eight, was admitted on August 29th, 1876. She stated that she had noticed a small lump on the hard palate since childhood, but it gave her no inconvenience until about two years ago, when it began to enlarge, and from this time it steadily grew, and soon began to interfere with her articulation. Her health had, however, always been good. There was no history of tumour in the family. The tumour filled up the hollow in the hard palate, being more attached to the left side, where the mucous membrane was continued directly over it, than on the right, where a probe could be passed between the tumour and the palate. It was about the size of a horse-chesnut, slightly lobed on the surface, elastic, but not fluctuating; the mucous membrane over it was not adherent to it, and was normal in appearance. The tumour moved

* This apparatus is made by Messrs. How and Co., of St. Bride's-street, Ludgate-circus.

slightly over the bone. There were no enlarged lymphatic glands in the neck. The accompanying woodcut was made from a plaster cast taken by a dentist.

On Sept. 6th Mr. Heath removed the tumour by making an incision round the left side of the growth, which then readily shelled out from a distinct capsule; the capsule itself was afterwards removed with the fingers. Bleeding was stopped by the actual cautery. The wound granulated, but left a part of the hard palate bare. A small portion of this was loose when the patient left the hospital, and she stated that when she drank fluid came into the left nostril. The patient left the hospital on Sept. 30th.

The tumour was examined microscopically, and found to be a small round-celled sarcoma.

KING'S COLLEGE HOSPITAL.

ANEURISM OF THE SUPERFICIAL FEMORAL ARTERY; COMPRESSION OF MAIN VESSEL FOR SIXTEEN DAYS; CURE.

(Under the care of Mr. JOHN WOOD.)

For the following interesting notes we are indebted to Mr. Duncan, surgical registrar.

George G——, aged thirty-five, a stableman, living at Eton, was admitted on Sept. 19th, 1876, for aneurism of the superficial femoral artery. Family history good; children healthy. He stated that he had never had gonorrhœa or syphilis. Nine years ago he had rheumatic fever. Had had no pain in the chest nor dyspnœa after exertion since the attack. Has always been a temperate man.

On July 25th, when he was riding, the horse ran away, and jumped over some hurdles. Immediately after this the patient felt a sudden pain in the upper part of the left thigh, to relieve which he had to ride home in a stooping position. On reaching home, about half an hour after, he found a diffused swelling in the upper part of the left thigh, which, during the next twenty-four hours, extended downwards to the knee. The swelling was painful, the pain being relieved by friction. No pulsation was at that time noticed in the swelling. About four or five days afterwards the skin over it became purple, and then the colour passed through all the ordinary hues of an ecchymosis. The diffused swelling lasted for about a fortnight, but a day or two after it had disappeared the patient noticed the local pulsating tumour. It was at that time somewhat smaller in size than when he was admitted.

On admission the tumour presented the usual signs of aneurism. It was situated on the left superficial femoral artery, at the lower part of Scarpa's triangle. It was ovoid in shape, and about two inches long. The patient was a strong, healthy-looking countryman.

Sept. 22nd.—Compression by means of a canister containing 8 lb. of shot applied to-day to the main artery above the pubes. This weight stopped the pulsation of the sac to a great extent, but not entirely. Compression was kept up for eleven hours and a half.

23rd.—Pulsation of sac found to be diminished.

25th.—Since the last note the compression has been kept up nearly continuously during the day, the average time during which the artery is subjected to it being about twelve hours. The condition of the tumour has not altered since the 23rd. Weight increased to nine pounds and a half.

Oct. 2nd.—Since the last note the same plan of treatment has been continued. The weight does not completely stop the pulsation of the sac; the swelling has, however, decidedly diminished during the last week. Has no pain down the leg.

3rd.—Complete stoppage of the pulsation of the sac was caused to-day, for three consecutive hours, by manual pressure on the canister of shot applied to the main artery. The weight was then left pressing on the artery as before.

4th.—Pulsation in sac less.

5th.—Complete stoppage of the pulsation by the above means for nine hours to-day.

9th.—Since the 5th the pulsation of the sac has been completely stopped for about nine consecutive hours every day by the above means. For the rest of the time the weight has been kept on the main artery, but without the addition of manual pressure. This morning, on removing the weight and examining the aneurism, the sac was found to be hard, smaller, and without pulsation. On the 5th great pain began to be felt down the left thigh and leg, which gradually increased in severity, so that the patient was unable to sleep last night. Since the same date, also, the left leg has felt warmer to the patient than the right. The superficial veins of the left thigh are enlarged. No pulsation can be felt in the left tibials. The temperature of the left ham is 98·6°; that of the right ham 95·4°. The circumference of the left thigh eight inches above the upper border of the patella is two inches greater than that of the opposite side.

10th.—The pain in the left lower extremity gradually ceased yesterday, and has now disappeared. The weight is still kept applied above the main artery.

12th.—Compression discontinued.

20th.—The aneurismal tumour is much contracted. Slight pulsation is felt in the left posterior tibial artery to-day. The circumference of the left thigh is now only one inch in excess of that of the right at the above-mentioned spot.

25th.—Got up for four hours to-day, and walked about the ward.

26th.—No ill effects from getting up.

28th.—Discharged cured.

ROYAL INFIRMARY, EDINBURGH.

COMPOUND COMMINUTED FRACTURE OF BOTH LEGS; DOUBLE AMPUTATION; RECOVERY.

(Under the care of Professor SPENCE.)

For the following notes we are indebted to Mr. Thomas Spence, M.A., M.B., late resident surgeon; and to Mr. J. Allan Gray, M.A., M.B., late clinical clerk.

J. B——, aged twenty-four, an engine-driver, was admitted into ward No. 18 at 10 P.M. on Feb. 12th. Half an hour previously, while his engine was proceeding slowly near the station, he observed a drunken man on the line some distance in front. In getting off to assist the man out of the way, he slipped on some ice and fell across the rails. The wheels of the engine passed over both lower limbs, and inflicted the severe injuries described below. Both at the time of the accident and during his transit to the infirmary he lost a great deal of blood.

On admission he was weak, very pallid, and wandered a little; the radial pulse was almost imperceptible. There were compound comminuted fractures in both lower limbs. The wheels had crossed the left leg in its lowest third, and the right leg close to the knee-joint, implicating the latter. The laceration and contusion were very extensive.

The patient was placed in bed and stimulants at once administered, but without much good result. Mr. Spence arrived about an hour after the admission, and amputated both limbs, the left one below the knee, the right in the middle third of the thigh. The bleeding vessels were secured by ligature, and the flaps stitched up. On removal to the ward, the depressed state of the circulation persisting, stimulants were again administered, but these the patient refused to swallow. Slight delirium continued

during the night, but passed off towards morning, when he was better, and the pulse fuller. Brandy was taken readily.

Feb. 13th.—Noon: Pulse 124; temperature 99·4°. Hæmorrhage being observed from the left stump, the stitches were removed, and two bleeding points secured. The cut surface was freely sponged with a tepid solution of boracic acid, and when the flaps were readjusted they were held in position by a fold of lint soaked in the same lotion. Dry cold by means of an ice-bag was applied to repress further bleeding. The right stump was also dressed with the boracic acid solution. Evening pulse 138.

14th.—Noon: Temperature 102·6°; pulse 140; evening pulse 138. Discharge from the stumps slight.

15th.—Noon: Pulse 116; temperature 100·4°. Patient much less feverish than yesterday; looks and feels better; discharge little; same dressing as before, except that the dry cold to left stump is discontinued. Ordered five drops of tincture of perchloride of iron, and ten grains of chlorate of potash, in half an ounce of water, three times a day. Evening pulse 132.

16th.—Noon: Pulse 136; temperature 103·6°. Patient not so well as yesterday; a fold of lint covered with moist charcoal laid along the line of union of the flaps, and lint wrung from boracic acid solution put over this. Ordered internally five grains of sulphate of quinine in an ounce of water, to be taken every four hours, in addition to the iron and chlorate of potash.

17th.—Noon: Pulse 124; temperature 103·8°. The discharge to-day greater in quantity and healthier in appearance.

18th.—Noon: Pulse 118; temperature 102·6°. States that he slept well during the night, and that to-day he feels easier. The wounds continue to look healthier, and to discharge more. Medicines repeated. In the evening patient expressed a desire to be raised in bed, and, immediately on this being done, hæmorrhage commenced from the right thigh. The stitches were taken out, and the origin of the bleeding looked for, but without success. The wound was then closed by silver-wire sutures. About two hours later bleeding from the same stump recurred, and again the stitches were removed, the wound opened, and all clots cleared away. A sponge was then placed in the stump, the flaps laid over it, and tightly bandaged. Dry cold applied by means of ice-bags.

19th.—Pulse 120; temperature 101·2°. Patient delirious during the whole of last night. At noon to-day he was placed under chloroform, when Mr. Spence examined the right thigh, but could find no bleeding vessel to account for the hæmorrhage. He continued delirious all day.

20th.—Noon: Pulse 120; temperature 101·7°. Was ordered last night twenty-five minims of solution of hydrochlorate of morphia and twenty-four grains of bromide of ammonium, but without inducing sleep, which only came on at 6 o'clock this morning. No recurrence of the bleeding.

24th.—Pulse 126; temperature 100·6°. Patient has been suffering since the 22nd from diarrhœa. Complains to-day of pain in the epigastrium. Ordered twenty grains of sulpho-carbolate of potash three times a day.

26th.—Pulse 120; temperature 100·6°. Last night the patient had a little difficulty in passing urine, which, however, was relieved by the application of a hot fomentation over the pubes. This morning he seems better, though he still complains of epigastric pain.

28th.—Pulse 124; temperature 102°. Urine passed easily; diarrhœa stopped.

March 4th.—Pulse 116; temperature 100·3°. The thigh flaps are healing well; those of the leg are somewhat slower, but seem also to be doing fairly.

6th.—Pulse 112; temperature 100°. Wounds continue healthy. Urine alkaline, with deposit of urates and slight amount of phosphates. Ordered ten-minim doses of nitro-muriatic acid three times a day.

13th.—Pulse 108; temperature 98·8°. Urine alkaline, albuminous, phosphatic. Signs of necrosis of bone observable on anterior surface of the tibia and on the head of the fibula.

24th.—Pulse 100; temperature 99°. An abscess which had formed on the inner side of the right thigh was opened by free incision, and a drainage-tube inserted.

April 3rd.—Noon: Pulse 124; temperature 103·8°. Immediately after breakfast this morning the patient complained of feeling cold; this lasted for an hour, and was followed by heat and fever. He had passed a rather restless night.

4th.—Pulse 96; temperature 99·6°. Slept well. No pain in stumps.

7th.—Pulse 106; temperature 98·8°. Slept well, and has a good appetite. Sulphate of copper applied to correct the weak action in the left stump.

12th.—Pulse 108; temperature 99°. On pressure over the inner side of the right thigh, near the groin, pus can be squeezed out through a sinus near the stump.

May 1st.—Pulse 104; temperature 100·3°. Urine of sp. gr. 1015; contains a little albumen and abundant phosphates.

3rd.—Pulse 102; temperature 99·6°. Mr. Spence opened an abscess in the left stump, and evacuated a quantity of pus.

5th.—Pulse 112; temperature 98·8°. Another abscess in the left stump opened.

7th.—Pulse 82; temperature 98·2°. Albumen in urine one-fourth.

12th.—Temperature and pulse normal. Albumen in urine greatly diminished.

18th.—Temperature and pulse continue normal. Urine of sp. gr. 1012; albumen almost entirely absent, but phosphates abundant.

22nd.—Pulse and temperature normal. Urine of sp. gr. 1015, acid reaction, slightly albuminous, but with the phosphates in normal quantity.

30th.—Pulse 96; temperature 98·5°.

June 5th.—Patient discharged.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

There was an unusually large attendance at the meeting of this Society on the 14th inst., when a paper upon a form of chronic inflammation of bones (osteitis deformans), by Sir James Paget, President, was read and discussed, the speakers being Sir William Gull, Mr. Brudenell Carter, Mr. Barwell, and Dr. Goodhart.

Before the adjournment the medical secretary read a report addressed to the President by the delegates of the Society at the recent Medical Congress at Philadelphia. The report alluded in flattering terms to the management of the Congress, the high character of the communications read there, and to the cordial reception given to all the delegates. The report was signed by Dr. Barnes, Dr. Hare, and Mr. Brudenell Carter.

A paper "On a Form of Chronic Inflammation of Bones (osteitis deformans)," by Sir James Paget, Bart., D.C.L., LL.D., F.R.S., President, was read by the surgical secretary (Mr. Hulke). It opened with a detailed account of a case which had been for many years under the author's observation. It was that of a gentleman in whose family there was no history of gout or rheumatism, but one of whose sisters had died of chronic cancer of the breast; he was a tall, thin, and well-formed man, and the father of healthy children. When forty-six years of age he began to suffer from pains in the thighs and legs, and at the end of one year he noticed the left shin to be somewhat misshapen. Sir James Paget first saw the patient in 1856, or two years from the commencement of the disease. He was then in good health, prematurely grey, and walked stiffly. There was some enlargement and irregularity of the left tibia and lower half of the left femur, but no tenderness. The urine deposited lithates. The case being regarded as one of chronic periostitis, iodide of potassium was given, but without result. Three years later the author again saw the case, this time in conjunction with Mr. Stanley. The left tibia had become larger and longer, so that it was curved anteriorly; the femur also

was more distinctly enlarged, and was arched forwards and outwards. This side of the pelvis appeared widened, and the whole limb was about a quarter of an inch shorter than the right. There was very little suffering, the clumsiness of the limb being the chief trouble. He had taken much iodine and other medicine, without the least effect. For the next seventeen years the disease steadily but slowly progressed. The left tibia continued to enlarge, and became more curved, and the same change taking place on the right side, the two limbs in time became symmetrically affected, and at the same time the knees became gradually bent. The skull also slowly increased in size, the head retaining its natural shape, and the face not being at all affected. The spine became slowly curved and almost rigid, so that the patient's height diminished from 6 feet 1 inch to 5 feet 9 inches; and the chest became narrow, shortened, and deeper from before backwards, and all movement was much restrained. The head was bent forwards, and the neck consequently shortened. The arms, not sharing in the shortening of the trunk, seemed long in proportion (photographs were handed round, showing the condition six months before death), and the angle formed by the shaft with the neck of the femur was diminished. In 1870, the left knee-joint became actively inflamed, and was left more stiff and bent afterwards; at the same time, some insufficience of the mitral valve was detected. In the summer of 1874 the patient suffered partial loss of vision from retinal hæmorrhage, and he also began to be somewhat deaf. He then also suffered from neuralgic pains, chiefly in the upper part of the body. In January, 1876, pain in the left forearm and elbow, followed by swelling in the upper part of the radius, appeared; but he was otherwise in good health, enjoyed a good appetite, and his mind was quite clear. From this time he began to fail, and it was evident that the painful swelling of the forearm was due to a cancerous growth, and on the 24th of March, after suffering from pleural effusion, he died. At the autopsy, the head was retracted to a level with the sternum, and the lower limbs rested upon the nates and heels, from the arching of the bones. The pericranium and dura mater were healthy. The lungs were compressed and contained a few nodules of cancer on their surface. The mitral valve was atheromatous and calcified; the aortic slightly atheromatous. The femur, tibia, and patella, and upper part of the skull were removed for examination. The upper one-third of the left radius was involved in a large pale grey mass of medullary cancer, the rest of that bone being healthy. Some cancerous nodules also occurred in the skull. The spine was shortened, but presented no outgrowths nor anchylosis. All the sutures of the skull were obliterated, the thickness of the bone being about four times the natural. The whole outer surface of the skull-cap was finely porous and reticulated for the passage of bloodvessels, and internally the grooves for the middle meningeal arteries were deepened, and a layer of dense white bone formed the inner table, but in places were intervals where reticulation was marked, in which a quantity of cancerous material was contained. The condition of the long bones was that of fine nodulation of the outer surface without any visible change in the periosteum, the surface being perforated extensively for transmission of vessels. The medulla was natural; the cancellæ had a normal disposition, but the compact substance of the shaft, and especially of the articular ends, was greatly increased in thickness. In places the outer layers of bone appeared to be separating in the form of thin plates, in other parts dense hard patches occurred. Mr. Butlin made a careful microscopical examination of the skull and the tibia, and found a diminution in the number of Haversian canals, which were widened and very confluent, and were occupied by a large amount of fibro-nuclear tissue, leucocytes, and occasionally myeloid cells and fat, around the contained vessels. The lacunæ and canaliculi were numerous, but not different from ordinary bone. A chemical analysis by Dr. Russell showed very little difference in composition to exist between the diseased and normal bone. The disease of which this case is an example is so rare and peculiar in its course that clinically it is not difficult to distinguish it, but specimens of the affection may be met with in museums under the general name of osteo-porosis, hyperostosis, senile rachitis, &c.

Case 2. Ten years ago the author saw a gentleman between fifty and sixty years of age, whose general health was good, but who had been suffering for many years from pain in the thighs and legs, attended by progressive increase in the size of the bones. Death took place from medullary cancer, involving the upper end of the humerus. No post-mortem examination was made.

Case 3. The author saw, with Dr. Brinton, a gentleman forty to fifty years of age, also in perfect health, with pains, enlargement, and curvature of the tibia; there was some thickening of the periosteum. Iodide of potassium was given without effect.

Case 4. A case of this kind is recorded by Dr. Wilks in the Path. Trans., vol. xx. The patient was sixty years of age when he died, and had been under the care of Sir W. Gull. He first suffered pain in the legs fourteen years before death. The tibiæ enlarged, and subsequently the cranium. The thorax also became implicated, the chest gradually becoming contracted and fixed. Sir W. Gull's notes add that the disease was accompanied by weakness, occasional vertigo, lowness of voice, but no pain. The head gradually enlarged, and the stature had decreased. The ribs were thick and immovable, and there was dulness on percussion over the whole chest. Post mortem, in addition to changes in the skeleton, described as "osteo-porosis," or "spongy hypertrophy," there was an epithelioma of the dura mater as large as a chesnut.

Case 5 was that of a carpenter sixty years of age, under the care of Mr. Bryant, in Guy's Hospital, with no history of syphilis, but who had for five years been subject to slight attacks of gout. Three years before admission he suffered from pains about the hamstring tendons. When seen by the author, there was marked anterior curvature of the tibiæ, the right being larger than the left; the fibula and patella were also enlarged, as were the bones of the upper limbs, chiefly humeri. The clavicles were thick, and the processes of the scapula enlarged. The ribs of the right side were slightly larger than those of the left. Usually the patient sits with his head bent forward; there is slight thickening about the internal protuberance of the occipital bone. Sir J. Paget had been unable to find recorded any cases precisely similar to these, and he considered the following to be the chief characters of the affection:—It begins in middle age or later, is very slow in progress, may continue for many years without influence on the general health, and give no other trouble than those which are due to the changes of shape, size, and direction of the diseased bones. Even when the skull is largely thickened, and all its bones exceedingly altered in structure, the mind remains unaffected. The disease affects most frequently the long bones of the lower extremities and the skull, and is usually symmetrical. The bones enlarge and soften, and those bearing weight yield and become unnaturally curved and misshapen, suggesting the proposed name, "osteitis deformans." The spine, whether by yielding to the weight of the overgrown skull, or by changes in its own structure, may sink and seem to shorten, with greatly increased dorsal and lumbar curves; the pelvis may become wide, the necks of the femora may become nearly horizontal, but the limbs, however misshapen, remain strong and fit to support the trunk. In its earlier periods, and sometimes through all its course, the disease is attended with pains in the affected bones,—pains widely various in severity, and variously described as rheumatic, gouty, or neuralgic, not especially nocturnal or periodical. It is not attended with fever. No characteristic conditions of urine or of fæces have been found in it. It is not associated with any constitutional disease, unless it be cancer, of which three out of the five cases recorded in the paper were the subjects. The bones examined after death show the consequences of an inflammation affecting, in the skull, the whole thickness, in the long bones chiefly the compact structure of their walls, and not only the walls of their shafts, but, in a very characteristic manner, those of their articular surfaces. The changes of structure produced in the earliest periods of the disease have not yet been observed, but it may be believed that they are inflammatory, for the softening is associated with enlargement, with excessive production of imperfectly developed structure, and with increased blood-supply. Whether inflammation in any degree continues to the last, or whether, after many years of progress, any reparative changes ensue, after the manner of a so-called consecutive hardening, is uncertain. The microscopic characters bear out this view of the nature of the process, and Mr. Butlin, in his report, discussing whether it might be of the nature of new growth, hypertrophy, or chronic inflammation, decides in favour of the latter. The paper goes on to point

out the diagnosis from various forms of hyperostosis and osteo-porosis, some of which are dependent upon simple inflammation of bone, others upon strumous, gouty, syphilitic, and other specific inflammatory processes. In such cases it is rare to get the whole length of the bone affected, but the distinction between them and "osteitis deformans" is most evident in the clinical history, and the absolute retention of good general health in the latter. The only parallel in this latter respect is with chronic rheumatic arthritis, which, however, is perfectly distinct, and is never associated with osteitis deformans. Rachitis and osteo-malacia have scarcely a feature in common with osteitis deformans. In rachitis the bones are too short, too small, and have different curves to the elongated and thickened bones of this disease; and in osteo-malacia they are thin and bent in an angular manner. In conclusion, the paper indicated the variety of diseases which have given rise to different examples of the great porous skulls found in museums, mostly without any life history. Some of them are examples doubtless of—(1) osteitis deformans; others (2) of osteo-malacia, as in cases described by Durham and Solly, which are distinguished by their softness and lightness in proportion to their size; (3) of rachitis, where the skull is very light and friable, with a fine felt-like surface; similar skulls from young lions and tigers are to be found in the Museum of the Royal College of Surgeons; (4) from disease in early life, in which both cranial and facial bones become largely thickened, porous, or reticulated, and the cranial cavity diminished; to this group belongs the "leontiasis ossea" of Virchow; lastly (5) enormous, bossed, and nodular outgrowths from the skull, as in the specimen described by Dr. Murchison and Messrs. Hulke and De Morgan in the Pathological Society's Transactions, vol. xvii.

Mr. BRUDENELL CARTER said that three years ago he saw the patient whose case had been described by Sir James Paget. He was suffering from a little cloudiness of vision in one eye, and, speaking from memory, Mr. Carter said that all that could be detected was a number of small hæmorrhages at the periphery of the retina. Dr. Andrew Clark also saw the patient, and considered the heart to be hypertrophied.—Sir JAMES PAGET said that he had vainly tried to discover whom his patient had consulted about his vision, for he was anxious to know whether there was any indication of compression of the optic nerves.—Mr. CARTER replied that, so far as he recollected, there was no change whatever in the disc; the retinal hæmorrhages were attributed to the cardiac hypertrophy.—Mr. BARWELL said that the specimens appeared to show that the bones had lost substance interstitially, with increased deposit in other parts. Was there much increase in weight or in specific gravity? He remarked that the Germans now style the affection known as chronic rheumatic arthritis by the name of "arthritis deformans," but it could equally well be called osteitis deformans, since in it the changes in the bones are as marked as those in the joints. He alluded to the difficulties in distinguishing between dried specimens of osteo-porosis and those of the disease described in the paper.—Sir WILLIAM GULL, referring to the case which had been long under his observation, and which was mentioned in the paper, could not see why it should be considered an osteitis. There was very little pain, but gradual enlargement of the bones; the urine was always normal. If this were an osteitis, he would ask how did it arise? and why were some parts of the skeleton free from it? The clavicles and the hyoid bone were affected, but not the small bones of the hands and feet; the processes of the scapula, but not its blade. The patient died from the effects of thickening of the ribs, and consequent fixation of the chest-walls, and the whole venous system was engorged. This engorgement accounted for his mental confusion as well as for the vascularity of the bones found after death. Was the process represented in comparative anatomy? It had none of the ordinary characters of inflammation, and might be a low physiological process.—Dr. GOODHART said the paper was of great interest in its bearing upon general pathology. He noticed that a large proportion, three out of five, of the subjects of the disease had died from cancer. Was there no link between the two? He ventured to submit the hypothesis that the process was rather of the nature of a generalised tumour—a diffused growth of osseous connective tissue, comparable to the diffused growth of fibrous tissue seen in molluscum fibrosum. If it were of this nature, and yet inflammatory, the development of cancer at the end of a length of years was very suggestive; it was as if there had been a gradual deterioration of the cells of ordinary inflammation ending in the formation of cancer. — Sir JAMES PAGET, in reply, said that the total weight of the affected bones was much increased, but not their specific gravity. The whole new product was bone, but with altered architecture. He had no doubt as to its being an osteitis, because there was a degeneracy of texture with an increase in its quantity. The gross definition of inflammation was an increased production of imperfect structures. As to its exact pathology, that was certainly doubtful. The name he had given to the disease showed that he knew nothing as to its origin, but in like manner absolutely nothing is known regarding the etiology of chronic rheumatic arthritis. He did not think there was any relation between the disease he had described and chronic rheumatic arthritis. In osteitis deformans the amount of arthritis is trivial, and in not one case of the joint disease was there any such implication of the shafts of bones as in osteitis deformans. In his exhaustive essay on chronic rheumatic arthritis, Dr. Adams, of Dublin, states that in no case does the disease affect the shaft of the bone. To Dr. Goodhart he would say that whilst the changes exhibited were so clearly the result of inflammation, it would be enlarging the field of tumours to include this change under them. He thought the coincidence of cancer in so many of the cases was accidental, and pointed out that in only one case was the cancer developed in connexion with the bone that was the seat of the osteitis; that was the case in which cancer of the dura mater occurred with the affection of the skull. In two other cases not read, one in Leyden and the other in St. Bartholomew's museum, cancer was associated with this condition of bones. At present it was a coincidence which could not be explained.

After the reading of the report of the delegates to Philadelphia, the Society adjourned.

CLINICAL SOCIETY OF LONDON.

AT the meeting of this Society on the 10th inst. (Sir W. Jenner, President, in the chair), a most interesting case of hæmophilia was read by the President, who explained that he had brought forward the case without notice because it enabled him to exhibit the organs in a recent state. After reading the notes in detail, Sir William summed up his experience of the disease in regard to its pathology and treatment. In the brief discussion that followed, some instances of the hæmorrhagic diathesis were related by Mr. Christopher Heath and Dr. Greenhow, and Mr. Howard Marsh made some remarks upon the joint-affections so frequently observed in the subjects of this malady. Dr. Theodore Williams related the sequel of a case of phthisis previously read before the Society, and showed the affected lung; and Mr. Walsham exhibited a patient with fibromatous growth in the scalp. Dr. Broadbent introduced a lad suffering from "leucæmia lymphatica," under treatment by phosphorus. The next meeting will, we believe, be devoted to the discussion of this and analogous cases, contributed by Sir W. Jenner, Dr. Gowers, and Dr. Greenfield.

Sir W. JENNER read the notes of a case of Fatal Hæmophilia. Thomas V——, aged thirteen, a printer's boy, having easy work, good food, and abundant warm clothing, was born in London, where he had lived all his life. When six years old he had scarlet fever mildly, and it was after this that it was noticed that bleeding followed slight cuts out of all proportion to their extent. On one occasion severe hæmorrhage, controlled with difficulty, followed a cut upon the back of the palate. The permanent teeth appeared late, and he had a double row of incisors. He had previously been in the hospital, and during his stay the inner row of incisors was extracted, causing hæmorrhage which was with difficulty checked. From that time to the present—i.e., for six or seven years—he was continually

losing small quantities of blood, chiefly from the nose and mouth, and once a large amount, which was stated to have come from the gums. There had never been blood passed from the bowel, but he had never been free from ecchymosis. His wrists, knees, and ankles were frequently swelling, without any injury being received, and of late the left knee had been permanently affected; otherwise he had been in good health. On 4th November, at 10 A.M., he presented himself at University College Hospital, saying that he had passed blood by the bowel. The abdomen was carefully examined by the physician's assistant, Mr. Broster, but with negative result. He was given an astringent lotion, and told to come again if the bleeding recurred. He reappeared at 8 P.M. the same day, saying that he had again passed blood from the bowel. It was then that the fact of his being the subject of hæmorrhagic diathesis first came out, the lad having been recognised as being previously in the hospital. He had, indeed, been six times in hospital—viz., on three occasions in the children's wards for effusion into the left knee; once for some injury under Mr. Erichsen; once in 1874 (aged eleven) under Mr. Marshall with a severe bruise on the inner side of the right thigh, following a kick; and quite recently under Mr. Heath for injury to the knee. The following facts regarding his family history were elicited from the mother. There were four boys, aged respectively seventeen, thirteen (Thomas), ten, and seven years, and one girl aged fifteen. Of these the eldest was quite healthy, was free from any disposition to bleed, never had any articular affection or cough. The girl had somewhat profuse catamenia; the third son was, like the second, the subject of the hæmorrhagic diathesis, but the youngest was healthy. The mother never had any miscarriages, and never suffered from profuse hæmorrhage. Her parents both died from short illnesses, but not due to any external causes; and their children, two sons and one daughter, were healthy. The father had two sisters, one of whom died of "nervous fever." He himself is of dark complexion, whilst the mother has brown hair and grey eyes, and looks delicate. She brought with her one of the children—viz., the boy aged ten years—and stated that the others were well grown. This boy was well grown, short, and sturdy, but not unduly fat. His lips were too full and red, and all the visible mucous membranes were full of blood. The chest was full above, but narrow and receding below, so that it was clear his lungs were small. There was no undue fulness of the superficial veins; vaccination marks perfect on his arm; inguinal glands perceptible to touch, and shotty; cervical glands not large; heart-sounds natural. He had dark brown hair and eyes. The nasal mucous membrane was dark, and poured out a rather copious secretion. No enlargement of spleen and liver. When about two or three years of age such profuse hæmorrhage followed a cut in the palm that his mother thought him suffering from the same complaint as his brother. About the same time he had scarlet fever, followed by dropsy, and later by bleeding from the nose and mouth. Since then he was frequently subject to spontaneous bleedings from these parts. The mother said that the child was "fuller of blood" than the others, and that bleedings generally occurred when he was looking his best. He easily got bruises. During the foggy weather he suffers from asthmatic attacks; never had any epileptiform attacks. The subject of the paper (Thomas) was well-nourished and developed, having a fair clear skin. There was marked pallor of face and mucous membranes; numerous subcutaneous ecchymoses on the left forearm and the outer part of the right thigh, which was much swollen. The left knee was swollen, and contained fluid. Pulse small and weak; temperature 100·2° F. A hypodermic injection of four grains of ergotin was administered. Two hours after admission he passed dark clots by rectum; and enemata of iced water were given, together with turpentine and acetate of lead internally. He passed more blood during the night. Next morning the urine was examined, and found to be turbid, free from albumen, slightly acid, and of a sp. gr. of 1008. Between 10.30 and 11.30 A.M. the hæmorrhage from the bowel returned sharply, and a starch enema, containing opium and acetate of lead, was given. Sir William Jenner saw the case at 2.30 P.M., and ordered gallic acid to be given by the mouth, and an injection of tincture of the perchloride of iron and water, equal parts, into the bowel. The injection returned in ten minutes after its administration, but there was no more hæmorrhage, although small stools were passed. The boy, however, became paler, weaker, and more restless, and died twenty-four hours after admission. At the post-mortem examination the surface of the body was noted to be pale. There was a large purple bruise down two-thirds of the left forearm, and ecchymoses elsewhere on the extremities, especially the upper part of the right thigh, the girth of which was nineteen inches and a half, as compared with the fifteen inches and a half of the left thigh. This swelling was found to be due to a large clot from extravasation of blood beneath the deep fascia; the clot was firm, and two inches in depth. The left knee-joint was full of purple blood and stringy synovia; the synovial membrane was stained an ochre-brown, and the cartilages were irregular, and reticulated in places from superficial erosions. The right knee-joint was healthy. The muscles were of good colour. On opening the thoracic and abdominal cavities, the organs were seen to be in natural position, slightly pale on the surface; but the intestines, and especially the lower part of the colon, showed much vascular injection after exposure. There were some old pleuritic adhesions on the right side. The pericardial sac contained two drachms of transparent fluid. The heart weighed seven ounces. Both sides contained much fluid blood and clots somewhat firmly interlaced. No ante-mortem coagula. The valves were healthy. Muscular tissue of natural colour; transverse striation of fibres less distinct and longitudinal striæ more marked than natural. Larger vessels were healthy. The right lung weighed eight ounces and a half, and the left six ounces and a half. Each presented numerous pale, sharply defined, and slightly raised patches, with adjacent hyperæmia; these patches were firm, but contained air and fluid, evidently not merely the result of anæmia. The pleura over them was the seat of punctiform hæmorrhage. The largest patch existed in the upper part of the lower lobe of the left lung, and on section resembled a diffuse pyæmic pneumonia, but on pressure only a colourless aerated serosity escaped. The bronchial tubes contained stringy mucus, which could be drawn out from them like the "casts" of plastic bronchitis. In dividing the rectum some dark fluid blood escaped, and the canal for the distance of fourteen inches contained blood, the two inches immediately above the anus being free. The blood was mostly coagulated, clots being found in all stages, and one very large one at the lower four inches in places firmly adherent to the wall of the gut. At this part the mucous membrane was ragged and torn, and extending beneath it in the submucous tissue was much clot. It was here evidently that the hæmorrhage had arisen. The brain was pale, its vessels thin-walled. Some blood from a cerebral vein was found to contain an excess of white corpuscles. There was only one kidney (the right). It was hypertrophied, weighed seven ounces, and presented traces of fœtal lobulation; its substance was pale. A patch of extravasation occurred beneath the mucous membrane of the pelvis. The ureter also was single, and the supra-renal capsule on the left side was disc-shaped. Spleen weighed four ounces and a half; its follicles were pale. The liver was healthy, its weight being thirty-one ounces and a half. The aorta was rather small, but healthy; the arteries and veins were also healthy in appearance. Sir William Jenner remarked that the case must be regarded as a genuine and typical example of hæmophilia, resembling in its general features several other cases which had come under his notice. Its subject was a male fairly well nourished, with abundance, but not excessive amount, of adipose tissue. The disease first showed itself in early childhood as a disposition to hæmorrhages of grave extent from trifling injuries, and occasional spontaneous bleedings, these latter occurring, as Sir William had seen in other cases, eventually from the lower part of the bowel. The lad had suffered from two, at any rate, of the three varieties of joint affection occurring in this disease—viz., from (1) spontaneous swelling, tenderness, and general puffiness of the joint, with little effusion, such as occurs in rheumatism; and (2) excessive secretion, with hæmorrhage from the synovial membrane, the result of slight injury. The third variety, rarer than the others—viz., much effusion of fluid without hæmorrhage—he did not appear to have had. Such joint affections are very characteristic. However, the patient's younger brother had not had them. The heart, which in many bleeders is malformed, was healthy, and

free from malformation or disease. The blood in the heart and rectum was very firmly coagulated, showing that after death, as during life, the blood, in a case of hæmophilia, does not lose the power of coagulating firmly. The boy did not actually die from loss of blood—the condition of the heart was not that of syncope—but from the affection of the bronchi and lungs. The structure of the veins and arteries was quite normal; the cerebral vessels, although thin, were not more so than in so young a subject in health, so that the case lent no support to the view that the walls of the arteries are in these cases of abnormal thinness. In most of the cases Sir William Jenner had seen the bleeding was venous, and not arterial; and in the present case he considered it to have commenced in the submucous tissue of the rectum, from the capillaries of that part, and that, the mucous membrane being rent, it had escaped into the bowel. The extent of mucous membrane involved was not large, and the formation of the clots at this part was due to the direct action of the perchloride of iron injected, for no bleeding followed at the time of its employment. He considered this to be the most efficient local styptic for hæmophilia with which he was acquainted. It is very doubtful whether death in this case resulted from the hæmorrhage from the bowel. The extravasation into the thigh probably assisted, and the peculiar state of the lungs and bronchial tubes may have been the immediate cause of death. The points in the pathology of hæmophilia that have been impressed on Sir William Jenner by the cases he has seen are—1st. That the tissues are all soft, so that they bruise easily. 2nd. That the blood is rather *slow* in coagulating, but its coagulum, when formed, is as firm as in health. 3rd. That blood is formed rapidly; that there is a tendency to plethora of the smaller vessels, and he had frequently observed that when the patient was looking his best is the moment when injuries have the worst effect, and spontaneous hæmorrhages are the most likely to occur. With regard to the etiology, it was not always possible to trace back the disposition to the ancestors. He had seen cases in families, where the ancestry could be traced for generations, where no history of hæmophilia in relations could be got; but when once developed it has often affected more than one member of the family. Sir William Jenner has known it transmitted by a daughter who was not herself the subject of the disease. In this boy's parents, and in their relatives, no hæmorrhagic tendency existed; there was instead only some disposition to phthisis. The present was, he believed, the only case in which the cause of the swelling of the joints was found to lie in effusion of blood with excess of synovia. Dr. Legg, in his treatise, was unable to find any such cause for the joint affection in any well-recorded case. In the present case there was, in addition to these changes, evidence of long-standing inflammation of the knee-joint. He had pursued for some years the following treatment of the disease, founded upon the pathological basis he had laid down:—Every month, or oftener, some mercurial, followed by sulphate of soda, in order to control the tendency to plethora. The latter should also be given once every week, and both should be repeated at other times whenever the patient appeared to be fuller of blood than normal. The diet should be rather dry, with a considerable proportion of white fibrinous meat, and plenty of open-air exercise should be taken, with the greatest care to avoid mechanical injuries.

Mr. CHRISTOPHER HEATH said that he had now under his care a member of another family, the genealogy of which he had published in 1868. He had then two boys, James and Charles W——, suffering from hæmorrhages from slight causes, as cuts and teeth-extraction. Their great-grandfather, James A——, was a bleeder, and was reported to have had a bleeding father and uncles. He had three sons, all bleeders, and five daughters, none of whom inherited the tendency. One of the latter married, and had three sons, who inherited the bleeding tendency from the grandfather, and four daughters, none of whom bled. One of the daughters married F. W——, the father of the two lads, one of whom is under Mr. Heath's care at present. The father died, and the mother married again, having two children by the second husband, who do not bleed. During last September Charles W—— came under Mr. Heath's care with a cut on the leg, and has been in hospital ever since with infiltration of the blood beneath the skin. There is considerable destruction of skin, and great tendency of the granulations to bleed. Both brothers had taken perchloride of iron and hydrochloric acid internally in pretty full doses. All the male members of the family had died out from hæmorrhage, leaving one female, who transmitted the tendency to her descendants.—Mr. HOWARD MARSH, commenting upon the morbid anatomy of the joint affection, said that he had met with four or five instances of hæmophilia, in almost all of whom this affection was present; one boy had effusion into the elbow-joint, resulting in suppuration, and, from what Sir William Jenner had said, this effusion was probably due to extravasated blood which subsequently suppurated. In other cases the joints were simply swollen uniformly and hot, and in one or two others so much accompanying discolouration of skin as to suggest the occurrence of hæmorrhage into the joint.—Sir WILLIAM JENNER remarked that Dr. Legg quotes a case in which suppuration of the shoulder-joint took place, and blood and pus were evacuated. With regard to the administration of perchloride of iron internally, he had frequently given it without any effect, and had concluded that at the early stage of the bleeding it was difficult, if even it were desirable, to check it. Applied *locally*, the perchloride of iron was invaluable; he had seen hæmorrhage from the bowel checked at once, with recovery. The lower part of the bowel was probably more prone to bleed, because of its great vascularity; and this being the case, he would urge practitioners in every case of intestinal hæmorrhage in these subjects to inject the perchloride at once.—Dr. GREENHOW was well acquainted with a family of six children, of whom five, three boys and two girls, had died from this disease. The survivor, a girl, was now twenty-eight years of age, and in good health. The collateral branches were all healthy, and showed no disposition to bleed. One of the fatal cases was from epistaxis in whooping-cough; another from extraction of teeth; and another, he believed, also from epistaxis.—Sir W. JENNER said that hæmorrhage following tooth-extraction was best checked by crystals of perchloride of iron.—Dr. GREENHOW added that nothing availed in his cases; pressure and styptics were applied without the least effect.—Dr. MAHOMED inquired whether any observations had been made on the pulse of the bleeders. There was no doubt that frequently a pulse of high tension, similar to that met with in Bright's disease, could be transmitted hereditarily.—Dr. GREENFIELD had met with a condition of the bronchi similar to that described in Sir W. Jenner's case, in two cases of death from hæmorrhage. One was a case in which death took place from hæmorrhage due to ulceration of a branch of the sciatic artery by an abscess connected with the hip. In both there was a plastic, apparently fibrinous, exudation into the bronchi. He could not speak as to the condition of the lungs.—Dr. A. P. STEWART asked if the injection of ergotin was only tried once, or was it repeated?—Sir W. JENNER replied that only one injection—of four grains—was given, but without any appreciable result. As bearing on the plethoric condition and its treatment, he once read an account of some cases by a Brussels physician who recommended that the patients should be bled every few weeks, to relieve the undue fulness of vessels. Sir William asked the author whether he had tried the plan, and with what success, and was informed that he had tried it upon five or six patients, but they were all dead.

Dr. THEODORE WILLIAMS then read the sequel of a case of Phthisis with rapid Contraction of a Cavity, which he had communicated to the Society in 1871. At that time some eminent fellows of the Society had expressed doubts as to the existence of a cavity, in spite of the physical signs narrated, but the death of the patient, in Jan., 1875, and post-mortem examination, cleared up all doubts. The patient, a widow, aged fifty-three, was admitted into the Brompton Hospital in April, 1871, with a history of pleurisy of twelve years' standing, and of phthisis of one year's duration. Dulness was detected over the whole left side, cavernous sounds from the first to the third rib, and rhonchi and râles below, and also in the right lung. Subsequent examinations showed a gradual diminution of cavernous sounds, and in July, 1871—i.e., three months after admission—they had entirely disappeared. No marked displacement of adjacent organs was then to be found, but a few months later the heart and stomach were drawn up, the right lung drawn across the median line, and some shrinking of the side was visible. In 1872 she survived a severe attack

of capillary bronchitis, but died of congestion of the right lung in 1875, the physical signs before death indicating great shrinking of the left lung. The autopsy showed an old puckered cavity, about the size of a date-stone, near the apex of the left lung, underlying the portion of chest-wall where the cavernous sounds had formerly been audible. The bronchus leading to the cavity was blocked and obliterated, and the greater part of the lung was in a state of fibrosis. The right lung was drawn across the median line, and was partly emphysematous and greatly congested. The heart was drawn up, and the left chest measured an inch and a half less than the right in circumference. Dr. Williams remarked that in this case each step of the contractile process had been noted by physical signs, and the post-mortem examination thoroughly confirmed the diagnosis. The fibrosis process may have had its origin in the old attack of pleurisy, and was the means of limiting the cavities and arresting the disease. The cavity sounds were quite distinct, and he could not understand the existence of a cavern having been doubted. Cavities were overlooked during life, even by accomplished auscultators; but this arose either (1) from the bronchus leading into them being blocked, (2) from their being small and deep-seated, or (3) from development of emphysema in the neighbourhood. On the other hand, consolidations should not be mistaken for cavities—the difference in the expiration note, the succussion sound, the gurgle, and examination of the sputum, being easy means of distinction. Dr. Williams remarked, in conclusion, that far more cavities were overlooked than were erroneously diagnosed.

Dr. BROADBENT exhibited a lad suffering from "Lymphatic Leucocythæmia," who was under treatment by phosphorus. The boy, who looked extremely ill, presented a large amount of glandular swelling in the neck, and was suffering more or less from pressure on the respiratory passages. There were also enlarged glands in the thorax and abdomen, but not in other sites, and Dr. Broadbent did not consider the case to be a favourable one for the treatment, because of the localised nature of the glandular enlargements and their encroachment on the air-passages. When so limited, he believed the enlarged glands behaved more as tumours, and could not be reached through medication which might affect the blood generally. The treatment had only just been commenced; and the leucocythæmia was not very pronounced. It was not anything like the degree met with in the splenic form of the disease.

Mr. WALSHAM brought forward an example of Localised Hypertrophy of the Scalp, in a stunted lad sixteen years of age. When nine or ten years old he had suffered from some affection of the left eye, for which he was blistered in the temporal region; and from that time he had noticed a gradual swelling on that side of the head. It now presented a lobulated mass, measuring six inches by four, doughy, elastic, not painful nor pulsatile, and terminated abruptly by the ear. At its margins it passed gradually into healthy scalp, and over its surface the hair-follicles were enlarged. The seat of the growth corresponded to the area of distribution of the auriculo-temporal nerve. The pericranium was not affected. The temperature of the part was slightly raised. Mr. Walsham remarked that it was probably of the nature of molluscum fibrosum—similar to the cases recorded by Mr. Pollock and the late Dr. John Murray. It was evidently not congenital, and this, with the absence of pulsation, precluded the idea of its being of nævoid nature. The friends attributed its formation to the use of the blister as above; and it was interesting to note the limitation of the affection to the scalp behind the fifth nerve, suggesting its possible origin in a reflex irritation of that nerve.

The Society then adjourned.

OBSTETRICAL SOCIETY OF LONDON.

AT the meeting of this Society on the 1st inst., Dr. Priestley, President, in the chair, Dr. GALABIN showed the uterus and adjoining parts from a case in which he had performed Cæsarean Section for Cicatricial Obliteration of Vagina. The patient had been left for two days in labour three years ago, and had had incontinence of urine since. The vagina had contracted so as scarcely to admit a No. 6 catheter. Cæsarean section was performed. Carbolised gut sutures were employed for the uterine wound. The uterus, however, could not be made to contract, and the patient expired before the abdominal wound was closed.—Dr. MEADOWS thought there could be no doubt as to the propriety of the treatment adopted by Dr. Galabin, but he took exception to one point in the operation—viz., the employment of catgut sutures in the uterus; they had most signally failed in his own and Dr. Routh's experience. The interrupted current would probably have been most useful in restraining hæmorrhage, and securing firm contraction of the uterus.—Dr. ROGERS had seen two cases of Cæsarean section recover where no sutures had been employed for the uterine wound, the peritoneal cavity not being closed until firm contraction of the uterus had taken place. He had also seen two successful cases where silver-wire sutures had been employed.

Dr. COOPER ROSE exhibited drawings of a case of Extreme Hypospadias, existing in a boy aged fifteen, who had been baptised, brought up, and educated at a public institution as a girl. He also showed some drawings lent by Dr. Westmacott of a somewhat similar malformation existing in a widower aged sixty.

Dr. MEADOWS exhibited, for Mr. Moore of Moreton in Marsh, a specimen of the tubal variety of Extra-Uterine Fœtation, which had burst between the fourth and fifth month, the patient dying in about fifty hours. The Fallopian tube of the side affected joined the uterus at some distance from the fundus, and seemed to have been the cause of the abnormal gestation, by causing an obstruction to the passage of the ovum along the oviduct. He had observed the same thing in other cases.—The PRESIDENT thought the specimen nearer the fourth than the fifth month.—Dr. BRAXTON HICKS suggested that the extra-uterine fœtus was generally below the normal standard.—Dr. HAYES thought a committee should be appointed to report upon it.

Mr. JESSOP, of Leeds, narrated the particulars of a case of Extra-Uterine Gestation, removal of living fœtus by abdominal section, recovery of both mother and child. The report of this case was published *in extenso* in THE LANCET on the 4th inst.—The PRESIDENT remarked that, as far as his knowledge went, this was the first recorded instance of extra-uterine fœtation in Great Britain where both mother and child had been saved by abdominal section. Notwithstanding the good result obtained, it must not be taken as furnishing a precedent and justification for abdominal section in other cases of extra-uterine fœtation. In many instances the child died, became encysted, and was converted into an inert mass, which gradually diminished in size, and did not imperil the life, nor eventually seriously interfere with the comfort, of the mother. The dangers of operating were greatly diminished by interfering at a late period, when the fœtus was dead and suppuration established.—Dr. MEADOWS reminded the Society that some years ago he had advocated the very practice which this case now so triumphantly vindicated. He thought it our bounden duty to interfere and rescue the child from its perilous position. Statistics of operations hitherto seemed adverse to this, but the almost uniformly fatal character of the operation was traceable to the forcible removal of the placenta, which gave rise to most alarming and generally fatal hæmorrhage. He hoped Mr. Jessop's case of would be the starting-point of a new practice. Indeed, he would go further, and express a hope that it would some day be regarded as sound practice, in all cases where tubular pregnancy existed, to open the abdomen and treat the case as we would an ordinary ovarian tumour—viz., by removal.—Dr. SNOW BECK remarked that the Fallopian tube was perfectly open to the passage of a small probe in the specimen Dr. Meadows had brought forward this evening.—Dr. WYNN WILLIAMS observed that the tube passed through the muscular tissue obliquely.—Mr. SPENCER WELLS asked for further details as to the provision for the escape of fluid from the peritoneal cavity after the operation. As long as the opening in the abdominal wall was free the patient did well, but as soon as the funis came away there were intervals of accumulating fluid, at times very fetid, with great pain and feverish attacks, followed by gushes of pent-up discharge, and relief until a fresh decomposition took place. Perhaps this might have been avoided by the use of a drainage-tube of glass or vulcanite, and the injection of some disinfecting fluid, as carbolic acid or iodine. It was by attention to such details in after-treat-

ment, as well as by improved methods of operating, that we might hope for very much better results now and hereafter than had previously followed gastrotomy in cases of extra-uterine fœtation.—Dr. CLEVELAND inquired if he had understood correctly that the patient had been sustained for a month by nutrient enemata. He thought they might be more successfully resorted to than they had hitherto been.—Dr. BRAXTON HICKS thought we should distinguish between this, an exceptional case, and those where the sac was ruptured and the cyst entire. The treatment was totally different where there was an amniotic sac; this should be stitched to the peritoneum, and the abdominal wound left open. Had the funis in this instance been cut off and the wound closed, the placenta would probably have shrivelled up.—Dr. JAMES EDMUNDS mentioned a case of Cæsarean section in which the placenta had been left in the uterus on account of a firm adhesion. The patient recovered.—Dr. EDIS called attention to the statistics collected by Dr. Parry in his recent valuable monograph on Extra-uterine Pregnancy. He showed that in 500 cases, 248 women went to or beyond term. Of these 122 lived and 125 died, giving a mortality of 50·4 per cent. Of 60 cases operated on, 34 lived and 26 died, giving a mortality of 43·33 per cent. Of 188 cases reaching or passing beyond term and left to nature, 88 lived and 99 died, giving a mortality of 52·65 per cent.; whilst of 62 gastrotomies for the removal of extra-uterine children during or at the end of gestation, 30 lived and 32 died, a mortality of 51·61 per cent.—only 1 per cent. in favour of gastrotomy. Dr. Edis thought the time had come when we should reconsider the subject, and not be wholly influenced by the mere statistics of preceding operations, more especially when we consider the great advancement that had taken place in the diagnosis of these obscure cases, and the improved method of dealing with the placenta and the after-treatment generally. In a certain number of cases extraction per vaginam, without opening the peritoneal cavity at all, would be resorted to, and the risk to life thus materially lessened.—Dr. PALFREY thought we were tied down by the tradition of our old teachers. In his own experience he had formerly been uniformly unsuccessful. The cases died from two causes—some were poisoned by opium and others from too much stimulant. He considered it the duty of every obstetrician to operate for extra-uterine fœtation as soon as the fact had been clearly ascertained. The patient's life was in peril, and we were morally bound to rescue her from that peril if possible. He regarded the statistics of our forefathers as valueless in guiding us in the present day.—Dr. AVELING thought the position of the child in the abdominal cavity a subject of great interest. Floating freely as it did, when alive, without the retaining influence of the uterus, he expected to find the head carried by the greater weight towards the pelvis; the opposite, however, was the case. This might be accounted for by the recumbent position which the woman had been obliged to maintain and by the altered shape of the abdominal cavity, caused by the filling up of the pelvis by the enlarged uterus and the placenta. The case, being so unusual, offered a good opportunity of testing the relative value of the gravitatory and reflex theories of fœtal position near the end of pregnancy.—Dr. WILTSHIRE thought Mr. Jessop ought to be congratulated on the success of his case, this being the first case in the literature of the English language where both mother and child had been saved. Keller, of Strasburg, had related nine cases, in which four of the mothers recovered, and seven children, one being a case of twins. The diagnosis of these cases was very difficult, especially in the early months. In cases of Fallopian gestation, we were apt to get rupture about the second month, when the cases were regarded as pelvic hæmatocele or cellulitis, there being a mass detected at one or other side of the pelvis and the uterus enlarged. In the latter months, even if fœtal movements were very distinct, it was not necessarily one of extra-uterine gestation. A case occurred in Paris, where everyone who examined it thought it to be extra-uterine, but the head presented and the child was delivered naturally. In peritoneal cases we ought to operate, leaving the placenta untouched, and allowing a free passage for the débris. — Dr. WYNN WILLIAMS alluded to the case of Dr. Greenhalgh's, where it was diagnosed very early, and the liquor amnii aspirated.—Mr. JESSOP, in reply, said he was highly gratified with the reception his communication had met with. Nutrient enemata were relied upon wholly for the first few days. As to the insertion of a drainage-tube by the side of the umbilical cord, not knowing what would become of the placenta, whether it would remain attached to the pelvic tissues and become one with them, or dissolve and come away, the tube was not employed, lest it should serve as an additional foreign body, and therefore an additional element of danger.

Reviews and Notices of Books.

A Course of Elementary Practical Physiology. By M. FOSTER, M.D., F.R.S., Fellow of Trinity College, Cambridge; assisted by J. N. LANGLEY, B.A., St. John's. London: Macmillan and Co. 1876.

THIS work constitutes an introduction to Practical Physiology, and supplies the student with the information with which he ought to be familiar before he undertakes the experiments set forth in the Handbook for the Physiological Laboratory, whilst it is a step in advance of the Lessons in Elementary Biology by Prof. Huxley and Dr. Martin. When these three works have been successively mastered, original investigations may fairly be undertaken. The volume commences with a description, extending over twenty-one pages, of the dissection of a rabbit and of a dog, attention being chiefly directed to those parts which are important in a physiological point of view, as the abdominal and thoracic viscera, the vessels of the head and neck, the cephalic nerves and their branches, &c., whilst the muscles of the extremities are only slightly referred to. In accordance with Dr. Foster's view that histology and physiology should be worked at together, the student is directed in the second chapter to study the structure of blood, that of the frog and of man being taken as types. The process of coagulation is next discussed, and in the following chapters cartilage, bone, and teeth; connective tissue; contractile tissue; nervous tissue; the structure and properties of the bloodvessels; structure of the heart; blood pressure; stomach and salivary glands, saliva, and gastric juice; intestine, bile, and pancreatic juice; the lymphatic system; liver and glycogen; the structure of the lung and mechanics of respiration; the colour of the blood, respiration; structure of the kidneys; urine; skin and touch; olfactory and gustatory organs; the eye; vision; spinal cord; dissection of the brain of a sheep or dog; dissection of the larynx; and, lastly, the tissues of reproduction. In an appendix some additional points are mentioned which could not be conveniently introduced into the text. The directions to the student are given throughout in the plainest and most intelligible language, and might be followed out at home, if a few instruments were supplied, almost as well as in the laboratory. Cross references are everywhere given to the Handbook, and no experiment is suggested which would require to be performed upon a living animal. Dr. Foster and Mr. Langley have written a very useful work, and we cordially wish them success in their efforts to generalise the acquirement of practical physiology in face of the great difficulties that at present exist to its study by any but those who are already experts.

Manual of Dental Anatomy, Human and Comparative. With 179 Engravings. By C. S. TOMES, M.A. London: J. and A. Churchill.

THE specialty of dental surgery has brought itself very prominently forward of late, and its claim to a like recognition with other branches of surgery has been urged with much reason by those fully-qualified practitioners who have devoted themselves to its practice. It is to the surgically-

educated members of the profession that we have been indebted for all the most valuable literature relating to dental disease and physiology, and whilst last year we had the pleasure of reviewing Mr. Salter's classical work on dental surgery, we have now to notice a "Manual of Dental Anatomy," by Mr. C. S. Tomes. We may say, *en passant*, that we consider the author has done himself some injustice in this title, as his book is chiefly interesting from a physiological standpoint; indeed, we are indebted to him for a peculiarly clear and concise exposition of the more recent views of those who have devoted their attention to dental histology — notably Kölliker, Waldeyer, Huxley, Salter, Beale, Robin, Magitot, and others. The task was by no means an easy one, for the development of the teeth is so complex a subject that it has given rise to innumerable diverse theories, which it is a matter of great difficulty to sift from one another; and in the case of French, and especially of German observers, it entails no small labour to correlate their technical expressions with those of English writers, who have also frequently described the same structure under such a multiplicity of terms that the student, in attempting to master their various conclusions, had to unravel a knot of Gordian intricacy. To Mr. Tomes he will find himself indebted for a solution of these difficulties, which will leave him no excuse for not conquering them in the future. Goodsir's division of the process of development into periods, under the names of the papillary, follicular, and eruptive stages, is clearly proved to be inaccurate, as were also the premises upon which he founded his deduction—viz., that the origin of the tooth-germ was a papilla of mucous membrane which subsequently became encapsuled. The true origin of the enamel organ from the oral epithelium was demonstrated by Kölliker in 1863, who proved that it was formed by an epithelial inflexion into the embryonic submucous tissue; and Mr. Tomes shows how maceration or steeping in spirit would tend to remove the superficial epithelium from a specimen, and thus give the appearance of a groove similar to that described by Goodsir as the "primitive dental groove."

The recent researches of the author on fish and serpents has proved the accuracy of Kolliker's views, as also the fact that the dentine germ is entirely distinct from the enamel organ beneath which the former assumes its papilliform shape. The existence of a cement organ is doubtful, despite the assertion of well-known authorities that the cement is produced like dentine and enamel, although it seems more natural to suppose that it is developed in a manner similar to bone. The *quæstio vexata* as to the presence of a *membrana præformativa* is next analysed. The membrane so termed has been a kind of Proteus, supposed to be present in every possible position, and known by many different names. Mr. Tomes opposes himself to the views of Huxley, Kölliker, and Wenzel, and denies the existence of the membrane, thinking that had it not been for the theory that the dentine germ had its origin in a free papilla, no attempt would have been made to demonstrate its presence; and we agree with him when he says, basing his opinion upon his own researches, that it is difficult to imagine that such a membrane exists upon papillæ which have their origin so much beneath the surface, as is the case in snakes and lizards. The short chapters on the development of piscine and reptilian teeth are particularly interesting, as they embody Mr. Tomes's original researches; and we would especially commend to our readers his account of the development of successional teeth in viperine snakes. The book ends with a *résumé* of comparative odontology, and we must conclude this brief review by congratulating the dental student on having the many difficulties which have hitherto beset the path of the odontological inquirer so successfully smoothed down, as they have been, by the author of this manual.

Infant Feeding and its Influence on Life. By C. H. F. ROUTH, M.D., Senior Physician to the Samaritan Hospital for Women and Children. London: J. and A. Churchill. 1876.

A WORK which has reached a third edition requires no lengthened notice at the hands of the reviewer; for, either it has attained its position by solid honest work, and by supplying a recognised want, or its popularity depends on the employment of arts which we are powerless to subvert. We are glad to place Dr. Routh's work in the former category; for, in spite of a tendency towards tall writing, the whole instinct of the book is thoroughly professional. The subject of infant feeding is a very important one, and is as yet but imperfectly studied by members of our profession. It is surprising what individual crotchets men have in this matter. The chapters on the Mortality of Children dependent on the Nature of the Food, Defective Lactation and its Treatment, Wet Nursing, and the Substitutes for Human Milk, are eminently practical. Such being the case, it is to be regretted the author has thought fit to introduce so much scientific padding. No one expects a physician busily engaged in practice to keep *au courant* with scientific literature; but certainly, when an author quotes at second-hand, we expect at least that he will give us the science of the day, and not extract from text-books of twenty years ago. For instance, we very much doubt if nine-tenths of the students in the laboratories could tell us what *oxide of lipyl* is, the present term being *propenyl*. Again, he says, "the blood is alkaline, and, as opposed to this, the flesh is *acid*." This is incorrect. Muscle at rest is neutral, or has a faintly alkaline reaction; only during stimulation, or when decomposition sets in, does it become acid. In future editions, we advise Dr. Routh to have this part of his work thoroughly revised, or, better still, entirely omitted.

The Climate of Jamaica. By JAMES CECIL PHILLIPPO, M.D., L.R.C.S. London: J. and A. Churchill.

LOOKING at its wonderful variety of climate, delightful scenery, luxuriant vegetation, and, not least, its material prosperity and order, Jamaica would seem to be more entitled to the appellation "Pearl of the Antilles" than the neighbouring island of Cuba. It is, probably, all things considered, the healthiest for Europeans of the group of West India islands. Dr. Phillippo, in the little book now under notice, makes no pretension to exhaustiveness; he skips lightly over some of the more salient features of the island which would arrest the attention of a stranger. The voyage out is described, also Kingston, the principal town, the lowlands, the climate, the diseases, and the mineral springs of Jamaica; while there are some meteorological records—mainly collated from the late Professor Parkes's work—which would be of interest to intending emigrants. Dr. Phillippo appears to think that Jamaica is adapted for a resort for English invalids, especially those suffering from tubercular disease. We scarcely think so, while there are so many eligible spots nearer home, such as Tangier, Algiers, Mogador, Madeira, and the Riviera; and it should be borne in mind that the diseases indigenous to the island may possibly prove more fatal than the affection which has driven the sufferer to seek relief in a foreign clime. A chapter might well have been devoted to the flora of the island. Still, to those about to proceed to Jamaica we can recommend the book; they will find in it many hints for the preservation of health which may prove of service to them.

THE LANCET.

LONDON: SATURDAY, NOVEMBER 18, 1876.

THE progress of the Conjoint Scheme has again received a serious check. Those who have not been quite bewildered by the metamorphoses and the never-ending vicissitudes of this unfortunate project may, perhaps, remember that at a conference of the representatives of all the medical authorities in England, in March last, it was resolved that the Committee of Reference should consist of four representatives from each of the three Corporations, and one representative of Medicine and one of Surgery to be appointed by each of the four Universities. By that arrangement the three Corporations were to have an aggregate of twelve members in the Committee of Reference, and the four Universities eight. An important alteration was, however, subsequently proposed by the University of London, whereby all the co-operating bodies were to have an equal number of representatives—which was afterwards fixed at two—on the Committee of Reference, the three Corporations having then altogether six representatives, against eight from the four Universities. Although the Universities were by these changes invested with an enormous predominance of power on the Committee, both the Colleges seemed at first willing to adopt the proposal. Only three weeks ago the Council of the Royal College of Surgeons resolved by a small majority to accept the changes proposed by the Senate of the University of London. Much dissatisfaction was, however, expressed in the Council and by the Fellows outside at the generous but apparently suicidal step. It was felt that the majority which had agreed to accept the fresh proposals was too small to allow of their decision being passed unchallenged, seven members of the Council having voted against, and only nine, including the President, having voted for their adoption, whilst four members obviated the difficulty of forming an opinion on this important matter by not voting at all. Accordingly, at a meeting of the Council, held on Thursday, the 9th inst., several influential members strongly opposed the adoption of the alterations, and an amendment was moved that the resolution of the former meeting, altering the constitution of the Committee of Reference, should be rescinded. With some hesitation this amendment was unanimously carried, and the Scheme thrown back for a time.

We need not now speculate as to the influences which induced this remarkable change of opinion, which, without doubt, reflects much credit on the candour, but little on the intelligence, of some of the members of the Council. When we consider that the nature of the changes proposed by the University of London were made known to every member of the Council several weeks before they were authoritatively discussed, it is impossible to avoid the inference that some of the members of the Council are either indifferent to all the interests of the scheme, or are incapable of comprehending the important issues at stake.

The Council has, it is true, consented to consider the whole question of a Conjoint Scheme at an early date, but it may be fairly asked whether this attempt also is not likely to prove futile? Many persons now feel convinced that a Conjoint Scheme, on the present basis, is impracticable, the vested and rival interests of some of the co-operating bodies being too great to be merged in a new and irresponsible body like the Committee of Reference, which, if constituted according to the latest proposals, would be unrepresentative. The returns of the General Medical Council of the results of professional examinations for 1875 show that while the Royal College of Surgeons of England granted diplomas of membership to 369 persons, and of fellowship to twenty-one, the University of Durham conferred the degree of M.B. on two persons, and of M.D. on one, while the Universities of Oxford and Cambridge each conferred eight medical degrees. The demand that each of the bodies should be equally represented on the Committee of Reference is manifestly a violation of all the principles of representative right, and cannot be consistently maintained.

Once more, we ask that this matter of a Conjoint Scheme shall be somehow disposed of. If the proposed scheme be impracticable, let the fact be acknowledged, so that each of the co-operating bodies may set its house in order and do its best to secure to itself the alleged advantages of a Conjoint Scheme.

WHEN the Royal Sanitary Commission of 1869 made its report it set forth at the outset, as governing its recommendations, the principle that "local self-government was essential to England." In terms as accurate as glowing it described local self-government as "the essence of our national vigour," adding, however, the important qualification, "subject to central superintendence." "Whatever concerns the whole nation," the Commission proceeded, "must be dealt with nationally, while whatever concerns only a district must be dealt with by the district." Then briefly touching upon a fundamental source of imperfection and inconsistency in local self-government, the Commission concluded that "local administration must nevertheless be maintained, but it should be at the same time simplified, strengthened, and set in motion."

This is very pretty language, but, unfortunately, it admits of widely different interpretations as it is regarded from the central or from the local point of view. In one sense there are few local things which may not be conceived as of national importance; in another sense the central authority exists only for the purpose of local benefit. Thoughtful men, in the calm atmosphere of their chambers, may perhaps not have much difficulty in prescribing practical limits to those matters which concern a whole nation and to those which concern a particular district; but men in their administrative capacity seem to be largely incapable of discriminating the practical line of demarcation which separates the two sorts of matters, and hence a chronic antagonism between central and local authorities. This antagonism is apt to display itself in very different ways on the part of the respective authorities; for, while with the central authority, having relations with many authorities, and by virtue of its constituted supervisory, it tends to aggressiveness, with the

local authority, restricted in its activity to limited bounds, and unable to avoid supervision, it tends to passiveness. With the one authority it is liable to become meddlesome and irritating; with the other stolidly obstructive. At the present time, so far as public health is concerned, the central authority seeks after a fashion to be pedagogic, but its pedagogism is that of the martinet of the old school, who proceeded upon a rigid system, and always kept the birch conspicuously suspended above the desk. Individual character was little heeded in this system of teaching, just as local peculiarities are little considered in the system of administration of our central health authority; in fact, the view of local self-government set forth by the Royal Sanitary Commission—namely, that "whatever concerns only a district must be dealt with by a district"—has been treated by the Local Government Board from a legal and *dogmatic* standpoint, rather than from the broader standpoint which the Commission's words would suggest. We refer to such a view of "strengthening" local administration as would consist in educing local thought and local invention, in addition to local action, in solving the many difficult local questions which present themselves in sanitary work and administration. We gave an illustration, which we would here recall, of the kind of central action we refer to, in our columns a few weeks back. In this case, a local authority, aided by a competent surveyor, designed a plan for abating sewage nuisances in a village, and for a supply of water. The plan was quite in accordance with accepted sanitary principles, and it was specially devised with regard to local peculiarities of place and people. The local authority applied to the Local Government Board for a loan to carry out its project. The central authority, after an inspection by one of its engineers, refused the loan, not because the plan was unfitted for the place, but because it did not meet certain views of the engineering department, as to what a sewerage system should include. In other words, the Local Government Board refuse the loan unless the local authority subordinates its local knowledge and responsibility in matters of practice, which it was the special duty of the local authority to determine for itself, to certain dogmatic teachings approved by the Board.

A central supervision of this kind, it should be obvious, so far from tending to strengthen and develop local thought and action in local sanitary affairs, must tend to degrade and frustrate them. The impolicy and mischievousness of a central sanitary administration conceived on such a plan cannot well be exaggerated. That this sort of administration pervades much of the doings of the Local Government Board must be apparent to all who have had occasion to know its proceedings in relation to the approval of bye-laws. These bye-laws are devised to meet the sanitary requirements of particular localities, but the object of the Local Government Board appears to be to reduce them all to one plan, as if the requirements of localities were the same throughout the kingdom. We hear continually of contentions between the Board and local authorities in respect to particular bye-laws devised by local authorities to meet particular local phases of sanitary evils, but always with the same result—namely, that the Board refuses to approve unless the bye-laws are drawn up in accordance with its general conceptions of what bye-laws should be, not in accordance with the particular local objects which the bye-laws are designed to meet.

The miserable narrowness of a policy such as this was incidentally, although probably unintentionally, brought into very clear light by Dr. BUCHANAN, in his late address on Citizenship in Sanitary Work. Dr. BUCHANAN'S object was to show, from the results of sanitary work in Massachusetts, and the manner in which those results were obtained, that sanitary administration would not progress faster than the sanitary education of the people, and to point out the fallacy of those writers who argue as if legislation were a panacea for sanitary maladministration and sanitary evils. In the course of his address he especially directed attention to the fact that it rests with the local sanitary authorities of Massachusetts *to issue such local sanitary orders and make such regulations as are best adapted to the circumstances of a locality*. These orders and regulations are to be made subject to the general sanitary laws of the State, but the local application of this law is left to the local authority. The result is that the best local talent is evoked to contend with local sanitary evils, and the question of the mode of their removal becomes altogether a secondary question to that of the fact of their removal being made efficient. This is precisely the reverse of the course pursued in this country, where the Central Authority insists upon the question of mode of procedure being made the primary question, subordinating to it altogether the object for which the mode of procedure is intended. In the instance we have referred to, sanitary work is put an end to for an indefinite period by the action of the Central Authority, the Local Authority holding that it would not be justified, on account of cost as well as of efficiency, in accepting the suggestions of the Local Government Board. Local health self-government in this country, in the proper sense of the word, can only be practised by those authorities who are enabled to provide their own funds without asking aid from the Government. It may be said that some of these authorities do not show such indications of efficient local sanitary action as would give the observer any very lofty notion of the merits of local self-government, when left to itself. Perhaps not; but our argument is that the controlling power devised by the Legislature to regulate and strengthen local self-government has wrongly conceived the method in which this should be effected,—that, in fact, the Central Authority, instead of stimulating, strengthening, and developing the local administration by efforts tending to develop local thought and resource in local matters, has largely substituted for this local thought and resource general dogmas and doctrines of the Central Administration.

THE structural changes which occur in the liver as a consequence of obstruction to the escape of bile from its ducts constitute a subject of much scientific interest, and of even greater practical importance in the light which it throws on the origin of the grave symptoms which result in long-continued jaundice. Until lately the subject has attracted little attention. In 1866 LEYDEN made some observations on dogs, but noticed only fatty degeneration of the hepatic cells as a consequence of ligature of the bile-duct. In 1872 A. MAYER, repeating LEYDEN'S experiments, found in cats

dilatation of the larger biliary ducts and injection of their smaller branches. Life was not usually prolonged for more than a few days after the operation, but in those cases in which the animal lived for more than a week he found a very marked increase in the quantity of the connective tissue within and without the lobules. In a valuable addition to our knowledge of the subject, in 1873, DR. WICKHAM LEGG corroborated the observation of MAYER, and found that the commencement of the cirrhotic process could be detected a few hours after the application of a ligature on the bile-duct. He referred it to the local irritating influence of the ligature, for he found that the degree of overgrowth of connective tissue depended very much on the way in which the obstruction was produced. The overgrowth was greatest in those animals in which a ligature had been placed around the bile-duct. In such a case, after fourteen days, the liver was found to be made up almost entirely of connective tissue, with a few dwindled hepatic cells. If the obstruction were such that the connective tissue around the bile-duct suffered little, the amount of connective tissue in the liver was small, and did not pass into the lobules. When the tissue was more abundant it always contained numerous lymphatic elements.

MM. CHARCOT and GOMBAULT have lately reinvestigated the subject, and have added considerably to our knowledge of the details of the liver process. The result of their experiments, which have lately been published, is to corroborate fully those of previous observers. The portal canals were found enormously dilated, and presented an increase in the thickness of their epithelial lining. The minute canals were also dilated. They found also that the growth of connective tissue outside the canals leads to an early isolation of the lobules, and ultimately encroaches on their area, invading the lobule simultaneously from all sides. This connective tissue accompanies in its development the dilated biliary canals. The tissue is at first embryonal, and gradually assumes complete development. There are thus dilated canals in the midst of a finely fibrillated stroma of connective tissue, which presents an embryonal character only in the immediate neighbourhood of the hepatic cells. The effect of this growth of connective tissue was invariably to increase the bulk of the organ. The subsequent contraction of this tissue was no doubt the cause of the reduction in bulk of the organ noted by LEGG.

More minute scrutiny of the liver-tissue showed that the diminution in size of the hepatic lobules, which, at first sight, appeared to be the consequence of the pressure on them of the connective tissue, had a peculiar character. The liver-cells showed no evidence of pressure; the rows of cells stopped suddenly at the edge of the morbid tissue; different rows of cells terminated at different places. The mechanism of the destruction of the cells could not well be distinguished. Fatty degeneration appeared to be a rare accident, and not the common mode of atrophy. The liver-cell appeared rather to diminish in size, to assume an angular form; its contents became homogeneous, and, as it were, vitreous. Here and there throughout the liver were found small collections of leucocytes, "commencing abscesses" they are termed, commonly situated in a lobule, and now and then surrounding a minute mass of bile. More extensive extravasations of bile appeared to have been the cause of peculiar yellow areas met with both in the substance and on the surface of the liver. They were more or less wedge-shaped, and contained fibres, separated by a homogeneous yellowish material. At the apex of each was an obstructed bile-duct.

The origin of the overgrowth of connective tissue is referred, according to these observers, not to the local irritant in the bile-duct, but to the effect of the distension of the minuter bile-ducts throughout the organ. Moreover, the bile with which they are suddenly distended must have an irritating quality, for vibrios were found in it in one case very soon after death. In this conclusion, however, they certainly put by too readily the remarkable variation in the connective-tissue growth, which induced Dr. LEGG to connect it with the variable local irritation. It is by no means improbable that each element may influence the result. If the distension of the ducts with altered bile can be considered as capable of producing an inflammation and growth of connective tissue outside their walls, it is at least equally capable of intensifying and modifying an inflammation excited by the local irritant outside the substance of the liver.

What is the origin of the numerous and flexuous canals which exist in the substance of the connective tissue between the lobules? Their characters suggest that they are new formations, and CHARCOT and GOMBAULT believe that they are to be ascribed to a transformation of the minute canals which normally exist within the lobules. Other empty spaces appeared due to the distension of these canals. The origin of the epithelium lining them is doubtful, and it appears probable that it may be due to an extension by continuity of the overgrown epithelium of the larger canals.

The identity of the changes found in the guinea-pig, which was the animal on which the experiments of MM. CHARCOT and GOMBAULT were performed, with the changes in the human liver under analogous conditions, is striking. The same fact results from the experiments of Dr. LEGG.

DURING the past few days it has been our privilege to receive, and to study, the Report of Proceedings of the Arctic Expedition, printed under the authority of the Lords of the Admiralty. This document, which comprises a foolscap paper of forty pages, gives a most exhaustive and interesting account of the voyage. From this we glean that on the 3rd of May (of course in the current year) five men had scorbutic symptoms, and that on the 8th of June fourteen of the crew of the *Alert*, and three men of the *Discovery*, were under treatment for the same disease, as well as four more reported by Captain Stephenson. "Its outbreak was most inexplicable and unlooked for," says the report. But, as we proceed, scurvy forms an unpleasantly prominent topic, and we are informed that, as to all the sledging expeditions, scurvy impaired their usefulness, and, speaking practically, hindered the successful accomplishment of the work that they had in hand. There is no disguising this fact, for it is acknowledged and declared in every page of the report. It is just and proper that we should here quote Captain NARES's written testimony on this point:—

"With regard to the outbreak of scurvy which attacked the crew of the *Discovery* as well as ourselves, when the

sledge crews started early in April a finer body of men in apparently perfect health it would have been difficult to pick anywhere; and I trusted that, owing to the excellent condition of our provisions, we were secure from any attack. But I must now conclude that disease was even then lurking among us, and that the heavy labour of sledge travelling intensified and brought it out, as has been the case in nearly all former journeys when the travellers have been unable to procure large supplies of game, and were unprovided with lime-juice. It attacked first the weakly men, afterwards the strong men who were predisposed for it, and most severely of all those who were employed on the longest and most trying journeys. Had there been no sledging work I believe that the disease would not have betrayed its presence amongst us, and had the officers been called upon *from the first* to perform as severe daily labour as their men I think that they would have been equally attacked."

This extract shows the opinion of the commanding officer of the expedition generally and specially upon the subject of scurvy. But we may fairly ask those interested in the sanitary aspects of the expedition if this explanation or if these particulars are satisfactory. The exertions of Dr. COLAN and his colleagues are very fully and fairly, in the Report, brought to the notice of the Lords of the Admiralty, and there can be no doubt that their work and indomitable courage and energy are beyond all praise, and cannot be recompensed by any honours that may have been, or will be, bestowed upon them; but inasmuch as, according to the Report now before us, at least three-fourths of those who constituted the expedition were more or less affected with scurvy, we still "want to know" if lime- or lemon-juice, or any other antiscorbutic, was provided for the sledging expeditions. As to this all-important point we are left absolutely in the dark, for no scale of provisions is given in the Report, and the latter does not contain any statement of the official instructions that may have emanated from Sir ALEXANDER ARMSTRONG'S office previous to the departure of the expedition. It is, of course, inconceivable that the medical officers should not have recommended the issue of lime-juice to the sledging parties. How comes it, therefore, that this all-important matter was disregarded? Was it by direction of the commander of the expedition? It is a duty to write very emphatically upon this point, because it is within our knowledge that the manuscript directions given to Dr. COLAN and his colleagues from the Department of the Medical Director-General of the Navy were, on this point, specially precise and explicit. Unless, therefore, some more satisfactory explanation as to this fatal outbreak of scurvy is officially published, it will be the duty of the Government to produce the instructions issued from the Medical Department of the Navy to the medical officers of the last Arctic Expedition.

THE health of the City continues good. A late report of Dr. Sedgwick Saunders detailed various sanitary measures which had been carried out—such as the inspection of houses, visitation of slaughterhouses, seizure of putrid meat, &c. The medical officer of health has discovered another pump which should be closed without delay. The water, on analysis, was found to be heavily charged with urine and sewage, and was described as "diluted sewage." The pump is situated on the premises of a cowkeeper in Widegate House, Bishopsgate, and has been in use for a long time.

Annotations.

"*Ne quid nimis.*"

SMALL-POX IN LONDON.

DURING the week ending the 11th instant, 50 fatal cases of small-pox were registered in London and its suburbs, of which 48 occurred within registration London, against 15 and 21 in the two preceding weeks. This is the highest weekly number of deaths from small-pox registered in the metropolis since May, 1872. Not only, however, did the fatal cases exhibit a marked increase upon the numbers in recent weeks, but they showed a wider distribution, which augurs unfavourably as to the future of the epidemic. The disease was again most fatal in South London, to which 20 of the deceased patients belonged; to North London 11 deaths from this disease were referred, to East London 6, and to the West and Central groups of registration districts 4 and 2 respectively. Of the 48 fatal cases 22 occurred in the two Metropolitan Asylum District Small-pox Hospitals at Homerton and Stockwell, and 2 in the Small-pox Hospital at Highgate. It is unsatisfactory to learn that the remaining 23 cases occurred in private dwellings, for the most part under circumstances which render isolation, or even successful treatment, of the patients an impossibility. Each of these 23 cases may therefore become new centres of infection, and further tend to increase the prevalence of the epidemic. In the present state of imperfect sanitary organisation, sanitary authorities and medical officers of health frequently receive their first intimation of a case of small-pox by seeing the entry of the registered death in the weekly mortality returns, perhaps more than a week after the death has occurred. Registration of sickness still only looms distantly in the future. All are agreed that cases of infectious diseases should be at once reported to the medical officer of health; but by whom? In the meantime, while this responsibility is being discussed and shirked by all those upon whom it should rest, the small pox epidemic is rapidly increasing in London, and the only practical means for arresting it are neglected. The Local Government Board by a stroke of its pen might do much by directing that returns of all new small-pox cases occurring in pauper practice should be made daily, not to themselves, but to the local medical officers of health. The payment for these returns should be equitably arranged for, but in the present crisis this is a secondary consideration.

The Metropolitan Asylum District Small-pox Hospitals at Homerton and Stockwell contained 269 patients on Saturday last, or 65 more than the number for which these two hospitals were originally certified by the Local Government Board; at the end of the three preceding weeks the numbers of patients were 177, 188, and 231 respectively. On the 11th instant no patients had been received in the Hampstead Hospital, although the admission of patients there may any day become a necessity. During the week ending 11th inst. 117 new cases were admitted to three metropolitan district hospitals, against 43 and 101 in the two preceding weeks.

In the outer ring of London fatal cases of small-pox occurred last week in Croydon and in Willesden sub-districts, and of the 48 cases registered within London, three were hospital cases admitted from Forest-gate, Acton, and Berkhampstead. Out of London and its suburbs, however, only 13 deaths from small-pox were registered last week in 19 of the largest English towns, having a population of about four millions of persons, and all these occurred in Liverpool, Manchester, and Salford. The small-pox epidemic is, therefore, still strictly local, although the want of

administrative sanitary control may prevent its being confined within its present limits.

"OSTEITIS DEFORMANS."

It is not often that we report in the same week such valuable communications from high authorities as will be found in our columns to-day—in the proceedings of the Clinical and the Royal Medical and Chirurgical Societies. At the latter Sir James Paget's paper dealt with a new and hitherto undescribed affection of the skeleton, for which he has proposed the name of "osteitis deformans." It is characterised by a slowly progressing enlargement (without weakening), and with consequent deformity of the long bones, chiefly those of the lower extremities, and of the cranium. It begins usually in middle life or later, and in earlier periods, and sometimes through its whole course, the disease is attended with pains in the affected bones; but there is no accompanying fever, and no characteristic changes in the excretions. In the majority of the cases which Sir James recorded cancer appeared towards the end of life, but he was inclined to think this only an accidental coincidence, especially as the cancer was mostly connected with bones which were healthy in other respects. Beyond cancer it does not appear to have been associated with any constitutional disease. The chemical composition of the new formation of bone is precisely similar to that of normal osseous tissue, but the microscopical characters are such that might follow inflammatory changes. In the discussion that followed, Dr. Goodhart threw out the suggestion that the changes described were comparable rather to diffused new formation of other forms of connective tissue, as, for example, in molluscum fibrosum; but beyond this hypothesis the remarks of those who spoke after the reading of the paper did not throw any light upon the subject. Sir William Gull appeared to demur to the affection being styled inflammatory, and pressed Sir James Paget for information as to its etiology, to which the latter replied that it was quite as obscure in its origin as the far more commonly known "chronic rheumatic arthritis."

THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

An instructive controversy is going on in this College between two parties who have always existed in it, and who, indeed, exist in all such bodies—a party anxious to enlarge the fellowship of the College on a liberal basis, and another party anxious to restrict the fellowship to the smallest possible number. By the original charter of William and Mary the number of Fellows was limited to fourteen, with power to remaining Fellows to elect when vacancies occurred. By the Act of George III., chap. 14, A.D. 1790, made perpetual by a later Act, it was enacted "that the President, Censors, and Fellows of the King and Queen's College of Physicians in Ireland shall have full power and authority to enlarge the number of their body by admitting into the fellowship of their body such and so many other learned and worthy doctors of physic as the said President, Censors, and Fellows of the said College of Physicians shall, from time to time, judge necessary and fit to be admitted, upon due examination, by said College." Such are the powers of the College. It is curious to note what, in the opinion of this important Irish body, was the number of learned doctors worthy to be admitted into their fellowship this year. Some months ago it was proposed that three should be so admitted on St. Luke's day, October 18th, 1876. A more liberal amendment by Dr. Atthill substituted for the word *three* the word *six*. This was still a very modest estimate of the number worthy of the honour of the fellowship. To Sir Dominic Corrigan, one of the Fellows, it appeared a narrow and restrictive proposition in June to limit the number to six to be made Fellows in October. All possible candidates who had not friends already in the College would know that the favoured six would be fixed as soon as the number itself was determined, and so be discouraged. Sir Dominic has had the courage to move the reference of this action of the College to the visitors—viz., the Lord Chancellor of Ireland, the Lord Chief Justice of the Queen's Bench, the Lord Chief Justice of the Common Pleas, and the Lord Chief Baron of the Exchequer. After an animated and protracted discussion, Sir Dominic's motion was carried by a majority of 11 against 9. The visitors on former occasions have spoken strongly of the attempts of the restrictive party in the College to perpetuate a system of exclusion which Parliament had striven to do away with. And we shall wait with interest their judgment on the present marked but obvious attempt of the same party. It is curious to see close corporations acting as if charters and Acts of Parliament were passed for the benefit of a dozen or two of men in a nation. In the College there are, we believe, about thirty-five Fellows.

VACCINIA.

It is gratifying to notice, in spite of the unfortunate parleying with anti-vaccinators, a steady growth of intelligence on the subject of vaccination and of trust in it as a most sensible operation to be practised twice at least in a lifetime.

The public should know that the object of being vaccinated is to have produced in the vaccinated person *vaccinia*. It is common for people to talk as if it was enough to have been vaccinated, whether vaccinia was produced by the operation or not. This is a great mistake. Security from small-pox is conferred, not by being vaccinated, but by having the system affected by the disease called *vaccinia*, which, like all other eruptive diseases, should have an eruption, and produce a certain amount of malaise and febrile disturbance in the system. So with revaccination. It is not enough to have the operation performed. What is wanted is the production of the disease a second time, in a milder and modified way, but still in a way to produce certain local manifestations accompanied with a certain amount of feeling of malaise. It is people who have had vaccinia well a second time who are protected from small-pox, not people who have merely gone through the formal operation of vaccination which may fail from various causes. In one case reported to us the temperature of a baby that had been well vaccinated ten days before, was found to be over 102°. This was two or three days after the period when public vaccinators are required to see a child. Yet the child was still ill. It had a sore arm and a high temperature. So much the better for the child; but the case shows that vaccinated children need a little more sympathy and attention than they get, and it is very likely that they would recover all the better if vaccinia were a little more regarded than it is.

As to the question of care and candour on the part of vaccinators, we would like to correct one impression, often expressed—viz., the impression that vaccination is done with more care by public vaccinators than by private practitioners. We beg to question this statement. If there are any doctors now so weak as to produce only one vesicle out of deference to the mother's feelings, he certainly deserves the censure of all critics. But it is obvious that private practitioners have as many inducements to vaccinate well as public ones, and it is rare to find in private practice those results which bring discredit on the operation. It is clearly the duty of every practitioner to exercise the greatest amount of care in satisfying his own mind that

the matter he is using is from a healthy source. But there is one other duty which may be not so clear, and that is the duty of the utmost candour in regard to cases of vaccination in which the operation has done harm, or seemed to do harm. These cases are so few, and the public intelligence is now so great on the subject, that we are persuaded that more good will ultimately be done by a frank admission of anything seriously unsatisfactory in cases, and a full investigation of it, than by any attempt at concealment. The benefits of vaccination are so splendid, and the arguments in favour of the vaccination laws are so overwhelming, that we can afford to admit the occasional occurrence of an inconvenient or even bad result. Mr. Wright, in a most interesting letter last week on erysipelas after vaccination, pointed out the harm done by passing over such cases lightly. They are very infrequent. But no practitioner should allow any considerations of private feeling or interest to interfere with the fullest investigation of them when they occur.

HÆMOPHILIA.

THOSE who were present at the last meeting of the Clinical Society had the advantage of hearing from Sir William Jenner an account of an extremely interesting case of hæmophilia, coupled with some suggestive remarks upon the pathology and treatment of this singular but serious malady. Far less attention has been bestowed in this country upon this disease than its importance and gravity merit; and to Dr. Wickham Legg is due the credit of having carefully collated from all sources what is known upon the subject in his elaborate essay on Hæmophilia. A few scattered cases may be found here and there in journals, and perhaps the most recent of these is to be met with in the form of a short article by Mr. Mac Cormac in St. Thomas's Hospital Reports for last year. It was, then, a fortunate circumstance that a case should have recently occurred under Sir W. Jenner's care at University College Hospital, which has enabled him to lay before the profession the ideas he has formed as to the nature of the hæmorrhagic diathesis. Affording one of the most striking examples of the law of heredity, this diathesis is singular in being restricted almost wholly to the male sex; occurring only occasionally, as in the case quoted by Dr. Greenhow, and as in one of the cases referred to by Mr. Mac Cormac, among the female members of a family also. And yet—as in the remarkably complete genealogy of Mr. Heath's patients—the tendency to bleed may be transmitted through a female member of a family who herself has never exhibited it—a fact which has also been noticed by Sir W. Jenner. Yet, again, in other instances no such hereditary transmission has been found to exist. Sir W. Jenner summed up in a few terse sentences what he conceived to be the pathology of this affection. It consists, he believes, not in any structural changes in the bloodvessels, but in an undue softness of the tissues, by which they are extremely prone to lacerate on slight injury, or even spontaneously (?), in an alteration in the fibrin-forming elements of the blood, by which coagulation takes place more slowly than in health, although when formed the coagulum is as firm as normal; and in a tendency to plethora of the smaller vessels. The treatment he has adopted, and with success, has been based upon these views on the pathology of the affection. For these and other points raised by Sir William Jenner—such as the occurrence of spontaneous hæmorrhage from the rectum and its prompt arrest by enemata of perchloride of iron, and the varieties of articular affection met with in the subjects of the diathesis—we must refer to the report in another column; and we may venture to express a hope that this valuable contribution from so high an authority will serve to stimulate further research into the precise nature of the changes in blood and tissue that underlie a malady that has frequently baffled all the resources of medical art.

THE EPIDEMIC OF TYPHOID FEVER IN PARIS.

TYPHOID FEVER has been more or less fatally prevalent in Paris since the beginning of the year. During the first two quarters, 205 and 179 deaths were respectively referred to this disease, the weekly numbers ranging between 7 and 29 during the six months. In the first week of July only 6 fatal cases were reported, whereas in the following six weeks the numbers rose rapidly to 87 in the seven days ending Aug. 10th; the weekly numbers afterwards declined steadily to 29 in the middle of October. The thirteen weekly returns of the quarter ending September gave, however, 650 fatal cases. Since the middle of October the fatality of the disease again showed a marked increase, and the reported deaths in the week ending the 9th inst. rose to 171, against 40 and 59 in the two preceding weeks. Thus, between the beginning of the year and the 9th inst., 1412 deaths in Paris resulted from typhoid fever; whereas, in London, the number referred to typhus, typhoid, and simple fevers in the same period did not exceed 971, in a population nearly twice as large as that of Paris. The annual death-rate from typhoid fever during the forty-five weeks was equal to 87 per 100,000 of the population in Paris; in London, however, the general fever-rate was but 33 per 100,000. During the week ending the 9th inst. the annual death-rate from typhoid fever was so high as 482 per 100,000. The Paris official returns record no fatal cases of typhus or simple fever; neither do they give any information as to the distribution of the deaths from typhoid fever, or afford any clue to the causation of this remarkable epidemic, one of the most striking features of which is the sudden increase of the reported deaths from 59 in the week ending the 2nd to 171 in that ending the 9th inst. It is to be hoped that, in the interest of international sanitation, the causes of the epidemic will be thoroughly investigated.

SALT WATER FOR SANITARY USES.

THE Town Council of North Shields is entitled to the great credit of having made the first successful experiment in the way of applying the salt water of the affluent river on which it stands to purposes of public sanitation. The experiment has been successful in the sense of adding a splendid quantity of water to the resources of the corporation at a very moderate cost, admirably adapted for abolishing the dust of streets, keeping them cool and damp longer than fresh water, and for flushing sewers, as well as for supplying private houses with the means of sea-bathing in an easy way. The history of this experiment and of several others will be found well stated in an article in the *Newcastle Daily Chronicle*, Nov. 8th, which is well worth the study of all the engineering and sanitary advisers of seaport towns. A little under 100,000 gallons a day can be drawn from the sea. At the further end of the system, at the village of Chirton, is a reservoir capable of holding 50,000 gallons, to relieve the pipes from pressure. Up to the end of 1874, the total sum expended on the works and plant was £2500. Then came a very profitable extension of the system to Tynemouth. Since then another extension, and a new reservoir capable of holding 250,000 gallons, have been sanctioned. The latter will cost £2000, and the mains £500, making a total expenditure of £7000. In 1867 and 1868 there was a water famine, and the corporation could scarcely purchase water for the streets, and the sewers went unflushed for a long time. In the autumn of 1868, as our readers may remember, there occurred in the town of

North Shields one of the most remarkable outbreaks of typhoid on record, to the number of 700 or 800 cases. Out of these experiences has arisen this great experiment in sanitation. Too much praise cannot be given to the sanitary committee of the Tynemouth Town Council, acting under the advice of their borough surveyor, Mr. J. P. Spencer, C.E., who with other engineers, has been consulted on the feasibility of supplying London with salt water for sanitary purposes.

A MARTYR FOR SPIRITUALISM.

MONCK, the medium, aspires to martyrdom in the cause of spiritualism. It would be regrettable if his ambition should be balked. A notion prevails in certain quarters that more harm than good is likely to be done by treating this craze too seriously. We think that apprehension is wholly groundless. There are collateral features and contingent consequences of the practice in which some otherwise strong-minded and respectable persons have recently been persuaded, under various pretences, to indulge, that cannot be disregarded. Not to travel nearly as far as, there is too much reason to fear, we might go, it is necessary to warn the public pointedly and urgently against the moral and intellectual consequences of allowing the mind to become debauched by the voluntary suspension of common sense. When men and women surrender the privilege, and abrogate the duty, of shaping their beliefs according to the evidence of senses trained and instructed by experience, they place themselves in a position of danger to sanity, which no intelligent being, however confident in his strength of intellect, should risk. When the admirers of legerdemain attend the performance of a professed conjurer they go to be amused. If anyone went to inquire whether there was not some force outside nature capable of explaining the feats of ingenious dexterity exhibited, the proceeding would be regarded as strong presumptive evidence of mental unsoundness. It would be argued that if such a power existed the manifestations of its presence would not take the shape of a purposeless performance got up for the sake of reward. If a spirit power existed it would not need to be called into action by a few adventurers in the nineteenth century, and, we may be assured, it would take some higher and less ridiculous form than a performance of musical boxes, furniture moving, and slate-writing. The mind that is prepared to treat these medium performances seriously must be already unhinged. It is necessary to suppose some motive or attraction which does not appear on the surface lures strong-minded persons to spiritualistic *séances*, and we think the nuisance and peril of such exhibitions ought to be rigorously and summarily removed.

SIMLA.

OUR readers will remember that a severe outbreak of cholera at Simla led to the appointment of a committee in September, 1875, to inquire into the sanitary defects of that station. We called attention to the fact that while the site originally selected and deemed sufficient to meet the requirements of a few Europeans, is now occupied by a large number of them and a still larger number of natives, no attempt had been made to ensure that practical sanitation kept pace with their greatly increased occupation. What had once been a delightful hill station has, as a consequence, become so unhealthy that its temporary abandonment had even been suggested. Simla has long been the seat of Government during the hot season, and besides being exposed to the risk of having a large floating population temporarily collected there, the water-supply of the station is scanty and exposed to contamination by bad drainage and the filthy habits of the natives. As long ago as 1863 the Royal Commission on the sanitary state of the Indian army remarked that the conservancy at Simla was as bad as it could be, that the water-supply was scanty and liable to pollution, that the effluvia from the ravines were "as strong as on going into a sewer," and that a large amount of hill diarrhœa prevailed among the residents. We are glad to learn, however, from the report on the sanitary measures in India in 1874–75 that there is at last some prospect of this state of things being remedied. The committee propose to take water from numerous springs on the south side of the Mahassu range, from a distance of fourteen miles, to lead it in by iron pipes, and to have covered reservoirs from which the water can be distributed in pipes over the main roads of the settlement. The springs on the northern slopes of the same range could be held in reserve for future requirements. The committee further recommend the opening-up of the bazaar, the provision of a proper market, the prevention of the further construction of houses on improper sites, and of overcrowding, and the improvement of the conservancy throughout the settlement.

THE LOCAL GOVERNMENT BOARD AND REVACCINATION.

AN important circular letter has been addressed by the Local Government Board to the Metropolitan Boards of Guardians, urging many necessary reforms in the rules governing the practice of public vaccination. The Board especially inculcates the necessity of revaccinating adults, and, which is most desirable, directs that vaccination officers shall be more diligent during their visitations in inquiring whether there are in the houses visited other children whose names are not on birth-lists, and in taking steps to require their vaccination also. The Guardians of Hackney have, on the motion of Dr. Millar, "constituted each district medical officer a public vaccinator for one month, with instructions to visit schools, &c., for the promotion of vaccination." This is a wise and opportune measure which cannot be too highly applauded. A visitation of Board Schools generally would be timely and advantageous. There are grave reasons to fear some of these promiscuous assemblies of small children are *foci*, if not nests, of epidemic disease.

MANCHESTER QUACKS.

THE air of Manchester ought to be purer for the manner in which the authorities have carried out the raid on the nest of quack doctors who have been thriving on the ignorance of the sick poor after duly working on their fears. On the 3rd inst. the work which had been auspiciously begun a few days before was continued. Charles D. Henry, 10, St. John-street, was fined £15 and costs. In this case the defendant had an impressive number of letters after his name—L.P.M.D. His counsel sought to explain this away on the theory that it meant "Licensed Patent Medicine Dealer." But the explanation was more amusing than convincing. R. J. Brodie was next called. He had M.D. on the back door. Notwithstanding that these forbidden letters were covered over with varnish and nearly obliterated, he was fined £5 and costs. William Henry Woodhead hoped to escape under cover of a diploma from the Metropolitan College, New York, "after undergoing examination"—at least his solicitor said so, and spoke as if his client stood in much better form than the rest of the quacks in court. But Woodhead's own brother testified that the defendant had never been in New York. A remarkable incident happened in the course of this case. A witness was called, who said that he held a diploma from the Metropolitan College, New York, and was on the Register. He knew the de-

fendant as having a similar document. It is even true that this witness is on the Medical Register, and there credited with being only M.D. Metropolitan College, New York. It is not reported whether he obtained his diploma after examination. A fellow feeling, we presume, made him wondrous kind to the defendant, whom, it is to be hoped, he will think less of than when he undertook to be a witness for him. Another M.D. of the Metropolitan College at New York, having on his plate "Dr. Dupre," was fined £3 and costs, notwithstanding that he argued that he had practised seventeen years, was entitled to practise before the passing of the Act in virtue of this diploma, and, though not registered, might have been. Edward Carey was fined £2, Allday £2, whose papers and pamphlets also were ordered to be destroyed. Key, Lewis, and Perry consented to the destruction of papers, books, and pamphlets. It will be very unfortunate if other towns fail to carry out the same treatment of such persons. The extortion practised by them and the injury done to the sick who are ignorant enough to be under their influence, make prosecution a duty. It is a matter of general regret that the swarm of quacks in the metropolis cannot be brought within the clutches of the law.

THE LODGING-HOUSE SYSTEM AT THE UNIVERSITIES.

THE Dean of Chichester, in a pamphlet addressed to the resident senior members of the University, has drawn attention to the immorality encouraged by the present lodging-house system at Oxford. It appears there are at this time at Oxford 536 licensed lodging-houses for students, containing 1082 sets of rooms. The Dean asserts that at the beginning of term lodging-house keepers hire very young girls from the neighbouring villages, with or without characters, to wait on the undergraduate lodgers; give them merely nominal wages, allow them unbounded liberty, and instruct them to obtain of their lodgers what gratuity they can. When long vacation begins the girls are dismissed. We quite agree with the Dean that such a system is in a high degree demoralising, and cannot fail to lead to injurious consequences. We cannot help thinking that such a state of things has been permitted to arise from some negligence on the part of the syndicate appointed for the purpose of licensing the lodging-houses. And we are glad to hear that the first-fruits of the Dean's pamphlet has been to elicit an inquiry by that body of the lodging-house keepers as to the female servants they employ. The syndicate, we think, would do well to keep a strict eye on the character of the lodging-house keepers. A house whose owner has lax notions of discipline soon becomes notorious, and attracts a class of lodgers that sufficiently characterises it. We believe the maintenance of morality at the universities is a matter of vigilance, and if the authorities appointed for these duties are sufficiently on the *qui vive*, they ought speedily to ascertain the character and repute of each licensed house, and act accordingly. The Dean thinks the remedy for this and other evils would be for the colleges to build lodging-houses of their own, and keep them under their own entire and exclusive management. This is a proposal which has frequently been advocated in our columns. The requirements of the Universities, both of Oxford and Cambridge, have of late years exceeded the accommodation the towns of either place can offer, and the students consequently are often housed most indifferently. Again, neither at Oxford nor Cambridge do the lodging-house syndicate trouble themselves about the sanitary arrangements, either "upstairs" or "downstairs." Unventilated closets, untrapped sinks, leaky soil-pipes, &c., are permitted to poison the atmosphere of rooms, which often are extremely small and confined. This neglect of a very obvious duty is the more strange when we consider the pains generally taken by the authorities of the colleges to secure within their own precincts all the best sanitary arrangements. At Cambridge, certainly, something has been done towards providing the student with better lodging-house accommodation; still, much remains to be effected, especially with respect to sanitary supervision. The student should be protected from the injurious influences of sewer-gas and sewage-polluted water, as well as from moral ill.

THE DUCHESS OF AOSTA.

ALL Italy—and, we are happy to see, a considerable number of those Spaniards whose affections she won during her short-lived reign at Madrid—are plunged into grief at the death of the young consort of Prince Amedeo. Her health, for some time delicate, was not, however, such as to create apprehensions of her so speedy demise. On the evening of the 8th inst. she dined with her husband and children, and she was remarked to be particularly cheerful. She had scarcely retired for the night when a sudden and severe fit of coughing supervened, resulting in symptoms of apnœa, produced by the rupture of a bloodvessel in the lungs. Her medical attendant arrived only to find her so distressed as to defy relief, and by her own request the chaplain was sent for and the last consolations of her church administered. In one of her latest paroxysms she was heard to murmur: "Ah! quanto si soffre per morire!" (Ah! what one endures to die!) and shortly thereafter she breathed her last. Prince Amedeo remained by her side till the struggle was over, a struggle borne with a serenity which those around her could not command. Her malady was pulmonary tuberculosis, and the sojourn at San Remo had been so beneficial to her that a permanent amelioration of her health was confidently anticipated.

THE ARMY MEDICAL SERVICE.

WE have been given to understand that an attempt is being made, in contravention of the terms of the recent Warrant, to place all medical officers doing duty with troops on the footing of *regimental* officers. If this be carried out, its effect will be not only to make these officers share in the expenses of regimental messes to which they do not really belong, but to entail on them a loss in the shape of allowances for lodging, fuel, and light, the rates for which are about a half or a third less than for staff and departmental officers. It appears to us that the sooner this matter is definitely settled, the better will it be for the contentment of all concerned. It should be one thing or another, and not left to district controllers to interpret these matters as they please.

HOW INFECTIOUS AND CONTAGIOUS DISEASES ARE SPREAD.

IT would appear that the time has now arrived when punishment of a somewhat more stringent character than a fine should be inflicted on those who carelessly, wantonly, or knowingly expose their fellow-creatures to the risk of being smitten with contagious and infectious diseases. The house of a dressmaker living in the district of St. George's, Southwark, was unfortunately occupied by a family one member of which was the subject of small-pox. This patient was removed to the hospital under the direction of the sanitary inspector, who warned the landlady that the room must not be again occupied until it had been fumigated and otherwise cleansed. But the warning was disregarded; the rooms were let at once to another family; and when Dr. Bateson, medical officer of health, visited the

place, a new crop of disease was, naturally enough, found. Sewing machines and materials for dresses were also in the room; so that it is difficult, if not impossible, to say how much mischief this particular nucleus of small-pox has caused. The case was brought before the magistrate, and a fine of five pounds was the result. But, as the law punishes cruelty to animals by imprisonment, it is surely fit and proper that persons should be subject to at least an equally severe sentence who expose others to the misery of a loathsome and often fatal disease.

MR. GLADSTONE.

IT is a matter of satisfaction to think that Mr. Gladstone's very ill-advised letter on vaccination has failed to impart that impetus to a hurtful and unfounded agitation which under other circumstances it might have done. Mr. Gladstone has, of late, written so much, and on such a multiplicity of subjects, that no one knew where, or on what subject, they might expect to meet him next. But even his power is spent in such profusion. There was no reason for him to "keep his mind open" on the question of vaccination at all. It was not only "open" to him to ascertain the facts which had been accumulated and were accessible to all, but we think it was the duty of such a man to have made himself acquainted with them before writing. We have been so long accustomed to associate all that was earnest and lofty in character and aim with Mr. Gladstone's public and private life, that our regret is the deeper at witnessing the dissipation of such splendid powers and opportunities in so many diffused impulses. We would urge the importance of rest—physical and mental rest—on Mr. Gladstone. The next meeting of Parliament promises to be one of immense importance; he will have "to gird up his loins" in earnest, and he will need all the robustness of mind and body he can bring to the strife of politics. Until then let him extract all the sweet he can from the repose of a country life and a tranquil mind.

CHILD POISONING.

A CASE of child poisoning by opium is reported in a provincial newspaper, the circumstances of which are of a somewhat extraordinary character. It appeared from the evidence elicited at the inquest that the mother had been in the habit of giving all her children pills to "sleep" them, and that she purchased these pills from "Edward Crompton, a shoemaker and farmer." On a stated day she bought a box containing 22 pills, and gave one to deceased, a little girl aged one year and eight months, and another to a boy. Next day her attention was called to the first child, who had a paper in her hand with eleven of the pills in it. Being asked what had become of the rest, the child pointed to her mouth. The box was found empty on the drawers. Soon after the deceased became very sleepy, and was taken to a medical man's house, where she died. The surgeon, Mr. W. Y. Martin, deposed that the child was comatose and presented all the symptoms of opium-poisoning when brought to his surgery. He applied the usual means of restoration, but without success. He had no doubt whatever that deceased died from narcotic poisoning. A chemist had analysed one of the pills, and found it to contain opium The jury returned a verdict that "the deceased, being a child under the years of discretion, had died from the effects of poison inadvertently administered by herself," and called the attention of the police to the man Crompton and his dangerous trade. Had the jury seen their way to have brought in a verdict of manslaughter against this person, it would have done much to arrest the illegal traffic in lethal drugs.

INDUCTION OF PREMATURE LABOUR.

A LATE number of the *New York Medical Journal* reports a paper read by Dr. S. A. Raborg on the "Induction of Premature Labour by an Interrupted Current Douche of Hot Water," before the County Medical Society. After describing the conditions in which premature labour was justifiable, Dr. Raborg calls special attention to three cases which had come under his care, and in which labour was induced by a current of water carried against the cervix uteri. The first case was that of a lady twenty-five years of age. Before coming under the observation of Dr. Raborg she had several abortions and labours in which delivery was accomplished by version and craniotomy. Her pelvis measured two and a half inches in the antero-posterior diameter, and about the same length in the transverse and oblique. It was decided to bring on labour at the eighth month. For this purpose an interrupted current of water was carried against the posterior wall of the cervix by means of a Davidson's syringe. Within twenty-four hours pains were induced, and at the end of five days the mother was delivered of a child without mechanical interference. In a succeeding pregnancy the continuous current was employed by means of an elevated reservoir of water. Labour was accomplished in nine days. In a third case the intermittent current was again employed with success. Dr. Raborg is convinced that the current of water from the syringe is more satisfactory than the continuous current.

POST-MORTEM CHANGES.

A CONTEMPORARY states that Professor Cesare Frederici, having been charged with the task of examining the skull of the musician Bellini, has published a letter containing the result of his investigation. In one part of the letter he says: "The body was enveloped in thin silk and linen, about which were wound strips of plaster. The first part of the body uncovered was the head. The hair and beard were close shaven. *The seams of the skin of the forehead had joined.* They resulted from a post-mortem examination made at the express command of Louis Philippe for the purpose of silencing certain reports propagated of Bellini having been poisoned. Despite this, the head and face retained their form, so that the family likeness, especially to the deceased's sister, was most striking. The other parts of the body were not in so good a state of preservation." In regard to the union of the incisions made in removing the calvaria, mentioned above, some error of observation must surely have been made. No doubt the hair and nails will grow after death, as there are several well-authenticated instances; but the union here spoken of can hardly have been more than might result from the exudation and subsequent drying up of blood and serum, aided by an accidental exact juxtaposition of parts.

"DOCTORED" WHISKY.

IT is asserted that "doctored" whisky, sold to the Irish people by itinerant vendors at the numerous cattle fairs in the country is responsible for half the crime in Ireland. The "stuff" is said to be so strong that a glass or two taken fasting makes a man temporarily insane. There is some truth in this statement; and it would seem probable from what has been published before, that whisky is more sophisticated and adulterated in Ireland than in England and Scotland. Such pernicious adjuncts as fusel oil, vitriol, turpentine, &c., may well give the drink an evil influence in excess of that ordinarily induced by alcoholic liquids, and work the consumers to deeds of ferocity. The matter was cursorily brought before the notice of the House of Commons last session, and, if we remember aright, it was con-

tended by an Irish member that all the bad whisky came from Scotland. How it it that the police, ubiquitous and all powerful as they are in Ireland, do not enforce the laws dealing with the sale of spirits? A determination on the part of the new Viceroy, the Duke of Marlborough, to carry out thoroughly the measures which are now only languidly applied, would do much, there is little doubt, to mitigate an evil which is of considerable magnitude, and could not fail to secure the sympathy and good wishes of the better class of the population.

EXAMINERS IN ANATOMY AND PHYSIOLOGY.

THE first meeting of the Committee on Examination in Anatomy and Physiology, for the selection of examiners at the College of Surgeons for the ensuing year, will be held next week. Mr. Holden and Mr. Cooper Forster do not seek re-election. We hear that a goodly number of Fellows of the College are candidates for the office.

THE HEALTH OF THE POPE.

OUR correspondent in Rome writes—"The death of Cardinal Antonelli has told severely on the Pope. For some days he has been in a state of extreme dejection of mind, and his physicians entertain serious misgivings as to his health. By their orders he has reduced his business-cares to a minimum, and every precaution is taken to obviate a recurrence of those epileptoid seizures which in his present condition might have the gravest consequences."

SMALL-POX DISTRICTS.

A HOUSE-TO-HOUSE visitation should be established in such districts, urging the immediate vaccination of unvaccinated children, and the revaccination of all adults who have not been once successfully revaccinated. More than one child in two who take small-pox, unvaccinated, dies; and probably 90 per cent. of the unvaccinated take the disease if exposed to it.

THE truth of our observations upon the danger of football playing, under certain rules, should now be apparent to all. Another addition to the long list of injuries, unfortunately, in this case, terminating fatally, occurred a few days ago. A sub-lieutenant of the Royal Navy, while taking part in a game in the grounds of the Naval College, Greenwich, received a kick on the side. For some days he made no complaint, but after a little time he was taken ill, and an abscess formed in his side which ended his life. Mr. Armstrong, the surgeon of the College, certified that the deceased had previously been suffering from blood-poisoning, and that the kick accelerated his death.

WE lately inserted in our columns a letter from a resident of Aberystwith dealing with the water-supply of that popular watering-place. It appears that three samples of water found in the Melindwr valley—which water it is contemplated to bring to the town by gravitation—were forwarded to Dr. Frankland for analysis. Dr. Frankland reports that all the samples are of excellent quality for dietetic and all domestic purposes: they are clear, soft, palatable, and perfectly free from animal contamination or lead.

IT has been decided that a new infirmary shall be erected for the poor of Marylebone, but there is a slight hitch with regard to a site. A deputation from the vestry had an interview last week with the President of the Local Government Board on the subject, but no solution of the difficulty was effected. One thing only is clear, that there is immediate want of a new building.

WE are requested to state that the National Hospital of St. John the Evangelist for Incurables, situated near Oxford, is now ready to receive patients. The institution offers a home, with suitable attendance, to such persons as are afflicted with incurable disease. It will be worked by a staff of resident ladies, giving their voluntary services, aided by paid nurses. The friends of patients will be expected to contribute a small sum towards their support. We trust the object of the promoters will not be subverted by the introduction of an undue amount of the ecclesiastical element; in short, that a building meant for a hospital shall not be turned into a church or convent. We confess to having a strong objection to the title of "Lady Superior," assumed by the gentlewoman who has been charged with the administration of the establishment. Why not Lady Superintendent? Ladies who devote themselves to the care and attendance of the sick—and a noble mission it is—may be reminded that Miss Nightingale was content to describe herself simply as a Nurse.

ON every hand there is a desire to make our militant forces, small though they be, efficient and complete in all their departments. The feeling has extended to the newest of the auxiliary bodies, the Volunteers. A movement is on foot to provide that force with "sick bearers" answering in a fashion to the Army Hospital Corps. At present the Volunteers have not even a nucleus of such a service, and "in the face of the present unsettled state of European affairs," the promoters think the time has arrived for the organisation of a most important department which has hitherto been neglected. A meeting of medical officers of Metropolitan volunteer corps has already been held, when resolutions were passed, and a provisional committee formed for furthering the object in view, which committee will meet again on Friday the 23rd inst., at 3.30, at the rooms of the Society of Arts, John-street, Adelphi. We wish the movement the success it deserves, and feel sure the army authorities will afford it their support, and, if necessary, direction.

AT the Mansion House, on Tuesday, proceedings were instituted by the Sanitary Authority of the City in relation to large quantities of tea, about 40,000 pounds in the aggregate, alleged to be spurious, found in a warehouse. Dr. Sedgwick Saunders, who had examined samples, testified that the tea was adulterated with colouring matter, foreign vegetable matter, and sand, and was unfit for human food. After a good deal of other evidence had been given, Sir Robert Carden, who expressed his regret that he had not the original consigners, or even the "heathen Chinee" who had a hand in the business before him, ordered the tea to be destroyed by burning. The authorities deserve infinite credit for the manner in which they carried their case through. The result will give general satisfaction.

IT is expected that the collections last Sunday for the Dublin Hospital Sunday Fund will exceed £4000. Besides the twelve institutions which received grants last year from the collections made, two additional may be added this year—viz., the Adelaide Hospital and the Rathdown Hospital at Markstown, which will receive a due proportion of the funds obtained.

THE parish of Marylebone appears to have been exceptionally healthy of late, to judge from the most recent mortality returns of the medical officer of health. No death from small-pox has up to this time been recorded, although three cases have been sent from the parish to the asylum hospitals, one of which, a boy aged eleven, had been out but a few days from the Homerton Hospital after an attack of

scarlet fever. The district is fortunate also in the quality of its articles of food, as of numerous samples of milk, arrow-root, coffee, mustard, tea, lard, honey, butter, and aerated water examined, one only, a sample of milk, was found to be adulterated.

We observe that some of the metropolitan boards of guardians, with the view of limiting the increase of small-pox, have stopped for the present leave of absence to work-house inmates, and also suspended the rule permitting their visitation by friends. This is a wise measure of precaution, which might be adopted throughout London. The activity and intelligence which parish authorities generally show at the present crisis in coping with the evil contrasts very markedly with the vacillation and obstinacy exhibited on a similar occasion not many years ago, and furnishes gratifying evidence of the diffusion of knowledge regarding the laws of health.

Two or three weeks back we drew attention to the prevalence of zymotic diseases in Poplar. There are as yet no signs of improvement. At the last meeting of the District Board of Works 26 cases of scarlet fever, 3 of typhoid, and 2 of small-pox were reported, of which number 18 had proved fatal.

We are informed that numerous cases of typhus and enteric fever have occurred lately in the East and West Ham districts, and that the local authorities are not taking adequate measures to arrest the extension of the maladies.

The British Medical Association will meet next year in Manchester. Dr. Eason Wilkinson is the president elect.

THE KEIGHLEY GUARDIANS.

In the Queen's Bench Division on Thursday, before Lord Chief Justice Cockburn and Justices Mellor and Lush, the case of the Keighley board of guardians again came before the Court on the Master's report. The defendants, who were on bail, were in attendance, having come up for judgment.

The Solicitor-General observed that, inasmuch as the proper order had been made in compliance with the peremptory mandamus, the Local Government Board would be willing to consent that the defendants should be liberated on their own recognisances to come up for judgment when called upon, on their undertaking not to do any act either to rescind the order or to prevent its being carried into effect.

The Lord Chief Justice.—That would be a happy ending of the matter, and it is a very liberal and generous suggestion on the part of the Local Government Board. Are the defendants willing to enter into the arrangement?

The defendants, having assented to the proposal, entered into their own recognisances in the sum of £1000 each to come up for judgment when called upon, it being intimated to them that while they remained on the board they must neither in their official nor private capacities do anything to obstruct the carrying out of the order by taking part in demonstrations or otherwise.

The Lord Chief Justice.—I am very glad that this matter terminates in this way. There can be no doubt that all these persons are in contempt in consequence of the course they have pursued in refusing to obey the peremptory writ of mandamus issuing from this Court. They have no doubt been actuated by conscientious motives, but it is not for members of a constitutional community like ours to set up their individual judgments against that which is the law of the land. It may be that here and there some mischief may have resulted from the practice of vaccination to which those persons are so strenuously opposed; but when we bear in mind that which we historically know, although, perhaps, these defendants may not know it, that before vaccination was introduced the small-pox was one of the greatest plagues and horrors that ever desolated a land, that it swept away its victims by thousands and tens of thousands, that it was a source of the greatest terror to the whole community, and that this plague has—practically speaking—been put an end to by this mode of dealing with it, we feel that this fact should influence the minds of all persons in favour of vaccination, as it has the Legislature and the whole of the enlightened and educated portion of the nation. That, however, is not the ground upon which we proceed. We proceed upon the ground that it is for the subject to obey an Act of Parliament, and for this Court to enforce obedience to it. In disobeying the law and in refusing to comply with the mandamus of this Court, the defendants have been guilty of contempt, but at the same time they have now put an end to that contempt by undertaking not to resist the execution of the order which has been made by their Board. The matter having thus terminated, we are relieved from the necessity of passing the very severe sentence upon the defendants which otherwise it would have been our duty to pass upon them.

The defendants were then discharged.

Correspondence.

"Audi alteram partem."

SCURVY AND THE ARCTIC EXPEDITION.

To the Editor of The Lancet.

Sir,—In an able article on the above interesting and important subject, which appears in The Lancet of the 11th instant, there are the following observations:—"It is proper to record our disagreement from Dr. Rae, and other writers, who have declared in effect that alcohol promotes rather than prevents scurvy. Alcohol is undoubtedly an antiscorbutic (although not a powerful one), and was so considered by the late Dr. Parkes," &c.

It would, indeed, be great presumption on my part to bring up my small experience in opposition to the opinions of those who may have seen many more cases of this curious disease under a variety of circumstances (climatic and otherwise) than I have done, and probably have had opportunities of experimenting upon them.

I must, however, guard myself by saying that in speaking of the injurious effects of alcohol, I confine my remarks entirely to its use or abuse in cold climates, of which I have had an experience of something like twenty winters, with temperatures varying from 10° to 50° below zero of Fahr.

When I first lived in these cold countries, and took long walks, sometimes of forty or fifty miles, on snow-shoes, I occasionally carried with me a small flask of spirits, according to the then prevalent custom when shooting in the Highlands of Scotland. I never used the spirits but twice, and on both occasions, although not far from home, I thought I never should have got there. The quantity taken was small, not above half a wineglassful, yet the very brief temporary stimulus was speedily succeeded by languor, faintness, and drowsiness, which I could with great difficulty shake off. I was then a healthy and moderately active young fellow of twenty-one, not easily reduced to the condition I have mentioned.

In many subsequent winter journeys over snow extending to thousands of miles, I usually carried in my canteen a flask of brandy as medicine, and have often as an experiment offered my men (old experienced travellers) some of it during the day's march. They, although fond of grog, invariably refused, asking leave to have it before going to bed, knowing that it would not then be so injurious. I observed, however, that the men to whom it was given were generally much more thirsty than the others, and not so well up to their work, during at least the early part of next day.

It may be asked, what has all this to do with scurvy? My reply is, that it has a great deal to do with it. The facts I have mentioned must, I think, be admitted to indicate that a continued use of even small quantities of alcohol in very cold weather has an injurious effect in causing a greater or

less loss of energy or vital power, without producing any compensating benefit that I am aware of; such loss of vital energy must lessen the resisting power of the constitution to the reception of scurvy, other conditions being favourable to the attack of this insidious disease.

Let me here mention the scale of diet for the sledging parties, arranged by the greatest known Arctic naval authorities, before this expedition left England, and on the use of which by the sledgers my supposition as to the cause of scurvy was based. Daily ration for each man:—1 lb. pemican, ¼ lb. bacon, 14 oz. biscuit, 2 oz. preserved potatoes, ¼ gill concentrated rum (55 over proof), ¼ oz. pepper, tea, chocolate and sugar; 1¼ oz. salt and 1 oz. onion powder per week. Salt, and I believe some spices, were added to at least a part of the pemican made for the expedition, which was called "savory pemican" to distinguish it from the other.

Yours, &c.,

Scientific Club, Nov. 13th, 1876. JOHN RAE.

P.S.—The following extract is from the *Daily News* of Nov. 14th:—

"*Total Abstinence and the Arctic Expedition.*—Mr. T. W. Glover, District Chief Templar for South Hants, writes to us from Southampton: 'I see a correspondent in a contemporary, signing himself "An Old Arctic," says the teetotallers in the expedition suffered as much as those who took rum. This being considered an important trial of those principles, I beg to give the following facts in relation thereto. Four brethren of the Good-for-Evil Lodge of Good Templars, in Portsmouth, were amongst the crews, and from a letter to hand since their arrival home, I find three of them stood true to their principles all through, and the other one up to April last. Neither of them suffered from scurvy, frost-bite, or any other sickness, although one, Adam Ayles, was in the sledging party away from the ships 110 days, and another of them 98 days. These men have, therefore, proved that total abstinence is compatible with the hardest work in the coldest regions, and the principles of Good Templary have been carried by them to the farthest parts of the known world.'"

*** We have not in our leading article alluded again to the antiscorbutic properties of alcohol, because it is a scientific question, and will be specially referred to in a future number.—ED. L.

THE REGISTRARSHIP OF THE MEDICAL COUNCIL.

To the Editor of THE LANCET.

SIR,—The last action of the Medical Council, in their election of a Registrar, is one which has caused painful feelings and a sense of humiliation, which it is difficult to suppress, in the minds of many in the medical profession. If we examine the matter, what does it amount to? A notice is issued, mainly in the professional journals, inviting application for the office. Measures are taken to produce the impression that in all good faith the best man will be chosen. Numerous applicants come forward. Four are selected and recommended, some of these from the country, to appear before the Committee. Its choice falls upon one who is not in the remotest degree connected with or interested in the profession. Are we to interpret this to mean that among all the 21,000 medical men of the country not one was found willing or competent to undertake the duties of the office? We cannot believe it. Or are the duties of the Registrar so unimportant as to require no special qualification for their efficient discharge? Was there ever an instance of a scholastic, legal, or other purely professional appointment conferred on an outsider? We are often enough snubbed by various sections of society, but what are we to say when so open an affront is offered to us by our own legislative council? But so apathetic and subservient are we, that we silently submit, and that a journal which professes to have the interest and honour of medical men at heart in an especial manner, even commends the wisdom of the choice. To you, Sir, our warm thanks are due for raising your voice on our behalf. But if we ignore ourselves, if we renounce our own claims and honour, and forget our own *corps d'esprit*, who then shall help us?

I am, yours faithfully,

Nov. 14th, 1876. F.L.S.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examination for the diploma, were duly admitted Members of the College at meetings of the Court of Examiners on Monday, Tuesday, and Wednesday last:—

Alford, Charles E., L.S.A., Crewkerne, Somerset.
Bain, David S. E., L.S.A., Newbury.
Blake, William H., Lymington, Hants.
Blaker, Thomas F. J., L.S.A., Brighton.
Buncombe, John D., Wellington, Somerset.
Cambridge, Thomas A., L.S.A., Gower-street.
Coates, William H., Hackney-road.
Collins, William E., Brecon.
Crée, Percy Kimburn, L.S.A., St. John's-park, Holloway.
Cuthbert, William W., L.S.A., Mendlesham.
Dring, William E., L.R.C.P. Edin., Beacon-hill, Camden-road.
Duggan, Mothwell, Durham.
Elcum, Donald, L.S.A., Hampstead.
Farbstein, Henry, Hull.
Ferguson, John, Manchester.
Gadsby, John T., Godmanchester.
Gibson, Charles P., Leeds.
Giles, George M. J., South Kensington.
Goodchild, Francis, Ealing.
Grant, James D., M.B. Edin., Edinburgh.
Greenwood, Major, Dalston.
Hassell, John, M.B. Edin., Northwich.
Herbert, Ethelbert A. H., L.R.C.P. Ed., H.M. Dockyard, Devonport.
Higgins, George H., L.R.C.P. Edin., Leeds.
Hudson, James, L.S.A., Holt, Norfolk.
Ingram, Ernest F., Worcester.
Irwin, John A., M.B. Dub., Manchester.
Jackson, Edwin, L.S.A., Manchester.
Jolly, Robert W., L.S.A., Shooter's-hill.
Kyan, John H., Preston.
Lewis, Thomas P., Edinburgh.
Mills, Robert J., M.B., Norwich.
Montbrun, Domingo, M.D., Port of Spain, Trinidad.
Newton, James, Fairfield, Manchester.
Norman, John E., Durham.
Procter, Henry C., Leeds.
Proffitt, William J. W., Burton-on-Trent.
Rean, William H., L.S.A., Poplar.
Rees, Alfred, Macsteg.
Richardson, Sidney L., Sydney, New South Wales.
Rigby, William B., L.S.A., St. Helens, Lancashire.
Rule, George F. H., L.S.A., Elgin-crescent.
Sangster, John Ikin, Barnsley.
Scott, William F., M.D. M'Gill College, Hull, Canada.
Sedgefield, Arthur R. W., Hammersmith.
Simpson, J. H., M.B., Pontefract.
Skerman, Sidney, L.S.A., Waltham Abbey.
Smelt, Frank H., L.R.C.P. Edin., Old Trafford.
Symons, John, L.S.A., Penzance, Cornwall.
Taylor, Henry E., L.S.A., Bradford.
Thain, Leslie, L.S.A., Peckham-rye.
Todd, Howard J. M'C., L.S.A., Kennington.
Tucker, Milton M., M.D. Toronto, Ontario.
Walker, Horace, L.R.C.P. Lond., Camberwell.
Watson, Charles S., M.B. Edin, Forfar.
Webb, William H., Wellington, Shropshire.
Whitley, Francis G. H., L.S.A., Truro, Cornwall.
Wickers, Henry A., Grosvenor-road, Pimlico.
Wickham, Henry, L.S.A., Tetbury.
Wilkie, David W. B., M.B., Melbourne, Australia.
Young, Archibald P., Norwood.

UNIVERSITY OF LONDON.—The following is a list of the candidates who have passed the recent Second M.B. examination:—

FIRST DIVISION.

Burton, Samuel Herbert, University College.
Edwardes, Edward Joshua, St. Mary's Hospital.
Ferrier, John Christian, Guy's Hospital.
Fox, Thomas Colcott, University College.
Hancock, John Gatchell, King's College.
Harrison, Charles Edward, St. Bartholomew's Hospital.
Hellier, John Benjamin, Leeds and University College.
Hunt, Joseph William, University College.
Jones, Arthur Henry, Guy's Hospital.
Kidd, Walter Aubrey, Guy's Hospital.
Lamb, William Henry, Guy's Hospital.
Pepper, Augustus Joseph, University College.
Pinnell, Thomas Mark, University College.

SECOND DIVISION.

Blake, Henry, St. George's Hospital.
Boddy, Hugh Walter, Royal School of Medicine, Manchester.
Briggs, Harry Beecham, King's College.
Duke, Herbert, Guy's Hospital.
Langley, John Geoffrey, University College.
Parry, Thomas Sharp, University College.
Pughe, Rhinallt Navalw ap Joan, Liverpool Royal Infirmary.
Rogers, Thomas King, University College.
Rossiter, George Frederick, St. Thomas's Hospital.
Seward, William Joseph, University College.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on Nov. 9th:—

Gillard, Clarence Richard, Clapham-road.
Hammersley, Joseph, Bedford.
Pedley, Thomas Franklin, The Terrace, Camberwell.
Snowball, William, Canton, Melbourne.
Thurston, Edgar, Eton.

The following gentlemen also on the same day passed the Primary Professional Examination:—

John Floyd and Walter Llewellyn, London Hospital; Lewis William Reynolds, Guy's Hospital; Ernest Sutton Smith, University College.

THE Sheffield Free Hospital for Sick Children was opened on Wednesday for out-patients.

MR. JOHN J. NASON, M.B., has been elected Mayor of Stratford-upon-Avon for the third year. This is the first time in the annals of this ancient Corporation that any gentleman has filled the office for three years in succession.

DR. D. M. BRUNTON, who was recently appointed house-surgeon to the Paisley Infirmary, escaped from his bed-room on Tuesday, while in a state of fever-delirium, climbed a boundary wall, and was shortly afterwards found drowned in the river Cart.

A SPECIAL "Arctic" meeting of the Geographical Society will be held under the auspices of the Society, at St. James's Hall on Tuesday, the 28th inst., when papers on the various results of the recent Polar Expedition will be read by Captain Nares, Captain Markham, and Captain Fielden.

THE usual quarterly meeting of the Committee of the Belfast Branch of the Royal Medical Benevolent Fund Society of Ireland was recently held at Belfast, the chair being occupied by Dr. T. H. Purdon, permanent president. The meeting was occupied by conferring as to the best means of extending the Society's benevolent operations. The annual meeting will be held next February for the election of the honorary officers for the ensuing year and the transaction of general business.

THE mortality in London last week was at the rate of 24 per thousand annually. There were registered 1635 deaths, including 48 from small-pox, 19 from measles, 32 from scarlet fever, 8 from diphtheria, 22 from whooping-cough, 24 from different forms of fever, 16 from diarrhœa, and 452 ascribed to diseases of the respiratory organs. On Saturday last the Asylum district hospitals at Homerton and Stockwell contained 501 patients, of whom 76 were under treatment for fever, 135 for scarlet fever, and 269 for small-pox.

AN HEROIC ACT AND ITS REWARD.—Mr. J. H. Irvin, a student in the Manchester Infirmary, has been presented with a massive silver cup, bearing the following inscription:—"This silver cup was presented, October, 1876, by the Baron Barreto, of Brandon-park, Suffolk, to Joseph Henry Irvin, Esq., at the Infirmary, Manchester, as a remembrance of his heroic bravery in allowing twenty-five ounces of his own live blood to be taken from him at the risk of his own life to save the life of a fellow-creature, which was infused into the veins of the poor dying man, whereby his life was saved, and he quite recovered."

Medical Appointments.

ALLEN, W. J., L.R.C.P.Ed. & L.M., M.R.C.S.E. & L.M., has been appointed Medical Officer of Health for the No. 2 Sub-district of the Ashton-under-Lyne Rural Sanitary District, vice O'Brien, deceased.

BERRY, J., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Leyland Urban Sanitary District till the 2nd April, 1878.

CARRINGTON, R. E., M.R.C.S., has been appointed an Assistant Demonstrator of Anatomy at Guy's Hospital.

CLEAVER, W. J., M.B., C.M., has been appointed a Medical Officer to the Sheffield Free Hospital for Sick Children.

DAGLISH, R. R., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Romney Marsh Rural Sanitary District, at a salary of £40 per annum.

DENTON, A. H., M.R.C.S.E., L.R.C.P.Ed., has been appointed Assistant House Surgeon to the Sheffield Public Hospital and Dispensary.

DUN, Mr. W. G., has been appointed Resident Physician to the Western Infirmary, Glasgow, vice Gowans, resigned.

GODRICH, A., L.R.C.P.L., M.R.C.S.E., L.S.A.L., has been appointed a Clinical Assistant to the Central London Throat and Ear Hospital.

GUNN, R. M., M.A., M.B., C.M., M.R.C.S.E., has been appointed House Surgeon to the Royal London Ophthalmic Hospital, Moorfields, vice Morton, resigned.

HALES, R. T., M.R.C.S.E., L.S.C. & M.B., has been appointed Surgeon to the West Beckham Workhouse and Parishes thereto attached, vice Skrimshire, resigned.

HARRISON, H. B., M.R.C.S.E., L.S.A.L., has been appointed a Clinical Assistant to the Central London Throat and Ear Hospital.

HEMMINGS, W. D., M.R.C.S.E., has been appointed a Clinical Assistant to the Central London Throat and Ear Hospital.

HIGGINS, T. J., M.D., L.R.C.S.Ed. & L.M., has been appointed Medical Officer and Public Vaccinator for the Welton-le-Weld District of the Louth Union, Lincolnshire, vice Bogg, resigned.

HITCHINS, T. J., M.R.C.S.E., L.S.A.L., has been appointed a Clinical Assistant to the Central London Throat and Ear Hospital.

JONES, W. J., L.K.Q.C.P.I. & L.M., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, &c., for the Silvermines Dispensary District of the Nenagh Union, vice Powell, resigned.

KERR, J. K., M.D., C.M., has been appointed a Clinical Assistant to the Central London Throat and Ear Hospital.

MACPHERSON, R., M.B., C.M., has been appointed Resident Surgeon to the Western Infirmary, Glasgow, vice Moffatt, resigned.

MOFFATT, R., M.B., C.M., has been appointed Resident Physician to the Western Infirmary, Glasgow, vice Brown, resigned.

NEWMAN, Mr. D., has been appointed Resident Surgeon to the Western Infirmary, Glasgow, vice Guthrie, resigned.

O'KEEFFE, D. J., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed a Medical Officer to the Sheffield Free Hospital for Sick Children.

OSBORN, S., M.R.C.S.E., M. & L.S.A.L., has been appointed a Clinical Assistant to the Central London Throat and Ear Hospital.

OWEN, W. G., M.B., C.M., has been appointed Resident Surgeon to the Western Infirmary, Glasgow, vice Clarke, resigned.

PLEYTE, J. M., M.D., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Eyde Branch of the South of England Sick and Medical Aid Society.

RICHARDSON, T. A., M.R.C.S.E., L.S.A.L., has been appointed House Surgeon to the Croydon General Hospital, vice Evans, resigned.

SHEARER, F., M.B., C.M., has been appointed Resident Physician to the Western Infirmary, Glasgow, vice Middleton, resigned.

SKERRITT, E. M., B.A., B.S., M.D., M.R.C.P., has been appointed Joint Lecturer on Medicine and on Pathological Anatomy at the Bristol Medical School, vice Martyn, deceased.

SYMONDS, C. T., M.R.C.S., has been appointed an Assistant Demonstrator of Anatomy at Guy's Hospital.

THOMAS, H. W., L.S.A.L., has been appointed House Physician to the Queen's Hospital, Birmingham, vice Allen, resigned.

TIDBURY, E., M.D., C.M., Q.U.I., has been appointed House Surgeon to the Western General Dispensary, vice Davidson, resigned.

WALKER, S. E., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for No. 3 District of the St. Neot's Union, Huntingdonshire, vice Raynes, resigned.

WEARRY, R., M.B., C.M., M.R.C.S.E., has been appointed Resident Medical Officer to the Kensington Dispensary, vice Frost, appointed House Surgeon to the North Staffordshire Infirmary.

WHITE, W., L.R.C.P.Ed., L.R.C.S.Ed., & L.M., has been appointed Medical Officer and Public Vaccinator for the Darton District of the Barnsley Union.

WORTH, T., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Nottingham Union Workhouse, vice Ellam, resigned.

Births, Marriages, and Deaths.

BIRTHS.

CUNNINGHAM.—On the 27th ult., at Ore, Sussex, the wife of Charles Lennox Cunningham, L.R.C.S.Ed., of a daughter.

FINCH.—On the 3rd inst., at Chichester, the wife of Henry Finch, M.D., of a daughter.

GOLDSMITH.—On the 8th ult., at Sutna, Central India, the wife of Septimus Jesse Goldsmith, L.R.C.P.L., Surgeon Bombay Service, of a daughter.

RICHARDSON.—On the 7th inst., at Beal, Northumberland, the wife of Henry Richardson, M.D., R.N., of a daughter.

WHITE.—On the 9th inst., at Westbury, Salop, the wife of W. H. White, M.B., of a daughter.

MARRIAGES.

CARTER—JONES.—On the 18th ult., at Trinity Church, Hampstead, by the Rev. H. S. Humphreys, uncle of the bride, George Roe Carter, Esq., L.R.C.S.I., L.K.Q.C.P.I., &c., Colonial Surgeon at St. Lucia, W.I., to Margaret Alice, fourth daughter of the late Thomas Jones, Esq., of Greville-place, Kilburn, and St. Lucia, W.I.

ILIFFE—CREUDSON.—On the 16th inst., at St. George's, Kendal, by the Rev. G. Creudson, M.A., cousin of the bride, Walter Iliffe, F.R.C.S.E., to Mary Cicely, only daughter of Edward Creudson, Esq., Banker, of Kendal, Westmoreland.

DEATHS.

BARLOW.—On the 8th inst., at Salzburg, Henry Clark Barlow, M.D., of Newington Butts, aged 70.

GWYTHER.—On the 6th ult., at San Francisco, Dr. George Gwyther, formerly of Bristol, aged 55.

HORNE.—On the 13th inst., at Adwell, Torquay, Thomas Benjamin Horne, M.R.C.S.E., aged 57.

JONES.—On the 9th inst., at The Grove, Menai Bridge, Ellis Jones, M.R.C.S.E., of Liverpool, aged 73.

LEE.—On the 3rd inst., at Wem, Salop, Henry Lee, Surgeon, aged 73.

MARSHALL.—On the 8th inst., at Lennoxtown, Stirlingshire, Allan Marshall, L.F.P.S.G., aged 67.

ROWE.—On the 2nd inst., at Hartland, Charles Henry Rowe, Surgeon, aged 70.

SANKEY.—On the 14th ult., at Dugshale, Punjaub, George Frederick Sankey, M.R.C.S.E., Surgeon 39th Regiment, aged 33.

TORRANCE.—On the 8th inst., at Airdrie, Thomas Torrance, L.F.P.S.G.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

Notes, Short Comments, and Answers to Correspondents.

THE VALUE OF THE PATHOLOGICAL SOCIETY'S TRANSACTIONS.

At a recent sale of the library of a lately deceased and much lamented London surgeon, a remarkable illustration was afforded of the scarcity of the earlier volumes of the Transactions of the Pathological Society. The complete set of twenty-five volumes was divided into two lots, of which the one comprising vols. IV. to XXVI. were knocked down for five guineas, whilst the remaining three volumes fetched £7 10s., the bidding being very brisk among the book dealers and others present. In the young days of this Society, when its roll contained comparatively few names, the number of copies of the Transactions printed was small, and hence the high market value now afforded them. At the same time it would surely be worth the while of the Council of the Society to again consider the question of issuing reprints of these earlier volumes—a proposal which fell through some three years ago. The value accorded to these volumes at this sale is evidence that the re-issue would not fail from lack of support, and might even be a source of profit to the Society.

Constant Reader.—In THE LANCET for May 29th, 1875.

SYMMETRICAL SHORTENING OF THE FOOT FROM BONE DISEASE.

To the Editor of THE LANCET.

SIR,—In your last issue is a report of a case of Symmetrical Shortening of the Foot from Bone Disease, which was brought before the Pathological Society by Mr. Sydney Jones, and he is reported to have said that the case was unique in his experience.

Now, my object in troubling you is to call Mr. Jones's attention to a series of cases which, so far as I can judge from reading your statement, entirely correspond with the one he narrated in all its essential points, and to assure him that such cases are by no means uncommon in Wiltshire, Dorsetshire, and surrounding counties, as is shown by the books of the Salisbury Infirmary; and during the last four years and a half I have there seen several cases, and at the present time there are five such patients eligible for examination (at least they were a month or two ago). The surgeons at this institution have long known and recognised this disease, and it is to their kindness and courtesy in communicating to me full particulars of previous cases that I am able to write the following statements.

The disease is mentioned by Nélaton, and also by Mr. Hancock, and the name given by him is, I believe, "perforating ulcer of the foot," and is thus recognised at Salisbury.

The features of the disease are as follows:—There is nearly always a history of profuse sweating, with the formation of what appear to be very painful corns, and the situation of these is very characteristic, as I have never seen them but in one situation—viz., near the head of the metatarsal bones, in close proximity to the metatarso-phalangeal joints. If these corns be shaved down, the operator comes upon an ulcerated surface, which is very tender, and which exudes a most unpleasant odour. If left alone, after a while these corns ulcerate, and a most unpleasant-smelling discharge issues; the ulcerated surface being also characteristic, there being a large, flattened, cartilaginous surface, with a small dark-coloured opening leading to bone. But there is another point which makes this disease most remarkable, and that is the shortening of the foot it gives rise to, and which tends to the supposition that the foot cannot have been developed; but the patients will assure you that the foot was like another's until this disease came on. I believe also that this shortening does not take place until after the ulceration, as I have never seen a case of shortening without ulcers either then existing or having previously been present. Now, most of these points were referred to by Mr. Jones, and what I regard as the characteristic symptoms are present, but he does not mention the character of the ulcerated surfaces.

The disease is very chronic; in all the cases seen by me it had existed some years; and it disables by rendering the patient unable to walk, and thus prevents his earning his livelihood.

Rest, and from time to time paring the edges, will cause these ulcers to heal; but immediately the patient gets about the wounds open again. At Salisbury removal of the metatarsal bones was tried, but the disease returned. Syme's operation was successfully resorted to, and this seems to be the only course to adopt, unless the patient is left to a long and miserable existence, utterly unable to get about.

Never having examined a specimen, I cannot speak as to the state of the bones after removal; but the shortening appears to occur in the metatarsus. Never having been able to secure a piece of bone from these wounds, it appears to me not unlikely that the bone is discharged as detritus.

I should like to narrate a remarkable case, where mother and son were both affected. The mother has been suffering for many years, but has had no operation performed, and the disease seems to have spread to the leg, as it is more thickened and hard. This is the only case in a female I have met with. The son has been in and out of the Salisbury Infirmary for years, and each time, by rest and paring the edges, the wounds have healed, only to begin again as soon as he went out. At last, being unable to do anything to earn a living, he wished something more done, and consented to amputation. A Syme was done; but the flap sloughed, and the leg was amputated at the junction of the upper and middle thirds, and did well. He then wished the other foot treated in the same way, as the disease affected both feet. This was amputated also at the junction of the upper and middle thirds, and healed; but, owing to the pressure of an artificial leg, the cicatrix ulcerated, yet healed after a long rest, but the wound had the characteristic appearance of the original disease. This patient has remained well since, and one foot has been preserved in the museum of the Salisbury Infirmary, which exhibits in a most marked way the characteristic shortening, and the peculiar position and character of the wounds.

I should like to know whether Mr. Jones considers his case as falling under my description, and if not, in what he considers it differs.

Yours truly,
M. G. BIGGS,
Late House-Surgeon to the Salisbury Infirmary.

Welford, *viâ* Rugby, Nov. 11th, 1876.

MUNICIPAL MEDICINE.

THE Town Council of Derby have, it seems, provided with more than traditional liberality for the needs of the local population. In the good old days of periodic depletion the boon of a public bath well supplied with leeches would have been hailed as a beneficent contribution to the public health. At present the medical luxury does not appear to be adequately appreciated. Mr. Councillor Oakely, probably an economist who does not approve the gratuitous supply of remedies, has protested, and gone so far as to produce a bottle containing three specimens of the useful animal at a recent meeting of the Council, with an indignant protest. It is to be regretted that the introduction of leeches should have taken place at a time when the condition of public feeling is not favourable to grateful acknowledgment of the favour conferred. About fifty years ago the Corporation baths at Derby would have been rendered famous by the discovery of this peculiar healing virtue.

Constant, (Brompton.)—Will our correspondent be good enough to forward us a concise abstract of the theory alluded to?

THE TREATMENT OF TALIPES VARUS.

To the Editor of THE LANCET.

SIR,—The originator of a new method of treating talipes varus—viz., by excision of the tarsus—objects to some comments which I made on the subject, because I had not seen his case or heard his paper read.

I imagine that reading the report of a paper in your columns is much the same thing as hearing that paper recited. With regard to seeing the case, no complications were claimed for it beyond those always present in a severe case of talipes varus. Being perfectly acquainted with all difficulties arising in the management of this deformity, I think I was justified in stating my opinion on the merits of the excision treatment. Surely if a surgeon excised a cervical vertebra or so for the relief of torticollis, it would not be considered incumbent on one to see the case before protesting against the operation.

My knowledge of the results following resection of a joint enabled me to show that excision of the tarsus "is a retrograde step in the treatment of deformities." To the arguments advanced in support of this statement, "a broader surgical experience" has not supplied its happy possessor with one word in reply.

Yours obediently,
FRED. R. FISHER,
Surgeon to the National Orthopædic Hospital.

Grosvenor-street, W., Nov. 11th, 1876.

To the Editor of THE LANCET.

SIR,—It is very much to be regretted that controversy of an acrimonious character should blemish scientific discussion. It must, however, be remembered that to the "so-called" orthopædic hospitals is due the whole of the knowledge we possess respecting the principles and practice of that important and difficult branch of surgery; notably so by the efforts of Dr. Little, who by the foundation of one of them made it part and parcel of the general sum of surgical knowledge.

"The broader surgical experience" of the large hospitals has not in any way improved these principles or perfected its practice; and as an illustration of this outcome it may be laid down as an axiom, from which there can be no appeal, that the "commencement" of treatment of a case of congenital or aggravated relapsed talipes varus by section of the Achilles tendon is neither in accordance with these principles, nor the accumulated experience of those best qualified to judge of such matters.

Est modus in rebus, sunt certi denique fines, quos ultra citraque nequid consistere rectum.

I am, Sir, yours &c.,
ERNEST CARR JACKSON.

Harley-street, Cavendish-square, W., Nov. 13th, 1876.

Constant Reader.—In the present state of medical education it is needful that a Poor-law medical officer should possess a double, that is a medical and surgical, qualification. It is impossible to suppose the Local Government Board would sanction the selection of a candidate with only one qualification in preference to other medical men doubly qualified. A medical officer should certainly reside in his district.

Dr. S. Cobbold.—Perfectly satisfactory.

A CAUTION.

To the Editor of THE LANCET.

SIR,—I wish to put my fellow-practitioners on their guard in reference to a visitor, whose object may very well be understood from the following.

On Saturday evening last (a most bitterly cold night), about seven o'clock, my servant told me a gentleman wished to see me in the hall, and, according to my regular habit, I immediately attended to his request. He wished to know if I would call to see his wife at 30, Warner-street, in this neighbourhood, that evening. She was very ill, and he did not know what could be the matter with her. They had just come from Jersey, and he did not know whether or not she was pregnant. They had been married three months. But before I went he wished to go and fetch her sister, who lived in London, so that if I would call in about an hour's time he would then have returned. I said that really I could not come, as it was such a cold night, as I had only recently recovered from a serious attack of inflammation of the lungs and hæmoptysis; but he begged very hard again, and when I assented he went away with a most imploring request, "You wont disappoint me." Suffice it to say, that when I went I found an empty house, and I have not seen my "gentleman" since, but shall be very pleased to make his acquaintance at a Police Court; not that I lost anything by his visit, excepting the vexation at being called out on such a fearfully cold night for nothing at all. His description is about 5 ft. 5 in. high, I presume about 11 st. in weight, about thirty years of age, fair complexion, and whiskers and moustaches, of which he has a fair quantity, nicely and evenly trimmed all round, and about an inch in length. A detective informs me that such a person should be detained till the arrival of a police constable, and be given in charge on suspicion. Trusting that he may soon fall into the hands of the police,

I am, Sir, yours truly,
F. G. LARKIN.

Trinity-square, S.E., November, 1876.

A BULLET IN THE HEAD SEVEN YEARS.

THE *Medical and Surgical Reporter* lately reported the following interesting case:—In September, 1868, a young man shot himself in the right side of the head with a pistol loaded with several balls. On the same day several pieces of bone and a bullet were removed. He was in a critical condition for a long time, but finally recovered and resumed his occupation. He remained perfectly well up to June, 1875, when he came into the doctor's hands with contracted pupils, high fever, dry hot skin, &c.; while there were clonic spasms of the entire left side, the muscles being in constant action. Under active treatment the symptoms subsided, and he again went to work. He now began to suffer from intense pain in the head, from which no relief could be obtained, and after a little time had repeated attacks of the same nature as the first. Examination detected at one end of the cicatrix caused by the gunshot wound, about half an inch above the external auditory meatus, a spot exquisitely tender on pressure, and slightly elevated. An incision was made down on the prominence, which was found to consist of a bony elevation, about five-eighths of an inch in its long diameter. This was cut through with a chisel, and a pistol ball was found imbedded, which was with considerable difficulty removed with an elevator. The bullet weighed 57 grains. The man afterwards enjoyed excellent health.

Dr. F. Bond.—We are unable at this time to give the number of the American journal in question from which the extract was taken, and do not preserve copies.

A CASE OF DISTRESS.

To the Editor of THE LANCET.

SIR,—I shall be glad if you will kindly acknowledge the receipt of the following sums in answer to the appeal put forth on behalf of the distressed medical man, for whom I acted as treasurer and referee, and which appeal you so kindly inserted free of cost in your journal, and for which I beg to tender you Mr. A. B. B. Watts's and my own best thanks.

Obediently yours,
C. H. F. ROUTH.

Montague-square, Nov. 15th, 1876.

Sir W. Jenner, Bart.	£2	2	0
J. Marshall, Esq....	2	2	0
A. F. Elliott, Esq., Seamen's Hospital, Greenwich ...	1	0	0
Dr. John Williams, Harley-street	1	1	0
Dr. J. Hall Davis	1	1	0
Dr. O'Connor, Upper Montague-street	0	10	0
Dr. Russell Reynolds... ...	1	1	0
A. W. Langton, Esq., Hastings	£5	0	0
A. E. Barker, Esq., Welbeck-street	1	1	0
Dr. Hall, Brighton	1	1	0
Rev. C. Ouston, Wimborne	2	0	0
Dr. Routh	2	2	0
M. A. Houghton, Esq. ...	1	1	0
Other Friends	15	0	0
Medical Benevolent Fund...	15	0	0

MESSRS. CASSELL, PETTER, AND GALPIN are now publishing in monthly numbers the Life of Christ, by the Rev. F. W. Farrar. Part I. of the serial edition is now before us, and fully sustains the reputation of the enterprising publishers. The type is extremely good, whilst the plates with which the work is enriched are of unusual merit.

Dr. Wood, (Cranbrook.)—The conduct of D. was, in our opinion, quite indefensible and uncalled for.

Mr. T. N. Orchard's letter shall receive attention.

LONDON WATERS.

To the Editor of THE LANCET.

SIR,—From the letter of Dr. Nicholas, which appeared in your last issue, I am sorry to find that my previous remarks on this subject have conveyed to his mind an impression which I did not intend.

I by no means wished to express the opinion that the mere knowledge of the source whence a given sample of water is derived is sufficient, apart from chemical analysis, to determine the sanitary value of such water for drinking purposes; but I do maintain that such knowledge is of great value in determining whether the evidences of "previous sewage contamination," afforded by chemical examination, may or may not be safely disregarded. A knowledge of the sources whence the Kent Company, the East London Company, and the Thames Companies respectively draw their supplies would lead us to form a different estimate of their respective values, although they might chance at a given time to yield equal proportions of organic nitrogen. We should naturally expect the water from the Kent springs—250 feet deep in the chalk, and carefully guarded from the entrance of surface water—to be unfluctuating in its chemical character, and this analysis has proved it to be, its average yield of albuminoid ammonia being about '02 parts per million; whereas the same product in the water of the river Lea, as supplied by the East London Company, fluctuates between '04 parts per million in the summer—a quantity that may be "safely disregarded"—and '18 parts per million in the winter, a quantity to be regarded as decidedly unsafe; and the same, within somewhat narrower limits, may be said of the water supplied by the Thames Companies. Thus we have in the case of the deep chalk wells a source of supply in which the chances of pollution are reduced to a minimum; and in the case of the rivers Thames and Lea, sources in which the facilities for contamination could not well be greater. These are "foregone conclusions," through which, I think, "the unerring scientific solution of the question" may be "filtered" with advantage until it eventuates in a solution of the more practical question, How is London to be supplied with pure water?

With regard to the origin of nitrous and nitric acids in water, I am content to admit that it may not be from sewage exclusively, but certainly from nitrogenous organic matter of some kind or other; indeed I would be inclined to give a wider signification to the term "sewage contamination" than is usually accorded to it, and include within it atmospheric sewage, as well as that of ordinary animal and vegetable origin. Some chemists maintain that the nitrates and nitrites may have other sources than these; but as far as I know they have failed to point out what these sources may be. On this subject I beg to direct the attention of Dr. Nicholas to the evidence given before the Royal Commission on Water-supply in 1869, as quoted by Dr. Hassall in his work on "Food and its Adulterations." It is particularly pertinent to this question, and very interesting.

I remain, Sir, your obedient servant,
ALFRED GINDROD, M.D.

Normanton, Nov. 13th, 1876.

QUININE IN SUNSTROKE.

To the Editor of THE LANCET.

SIR,—Dr. Hall will not, I am sure, object to my making a statement with reference to the treatment of "sunstroke" by quinine, which "circumstances" may have prevented him from making himself—viz., that the discovery (for in truth it is well worthy of the name) originated with one of the leading practitioners in Calcutta, Dr. Waller. By the term "sunstroke" I do not, of course, mean the effect of the sun (or heat), characterised by great prostration, with *coldness of surface*, but "*insolation*" (so called), also caused by, not necessarily the sun, but heat accompanied with *pungent warmth of skin*.

About eight or nine years ago Dr. Waller, then superintendent of the depôt of the Peninsular and Oriental Steam Navigation Company in Calcutta, had under his care several cases of "insolation," occurring chiefly amongst the stewards of the Company's ships, and it was in the treatment of these cases that he tested and proved the efficacy of quinine in large doses. The result of his experience was published in the *Indian Medical Gazette*. Then Dr. Hall, at that time in medical charge of the artillery at Barrackpore, adopted, with equal success, the same treatment in the cases of "insolation" occurring amongst the artillerymen. Time was when "insolation" was treated on the antiphlogistic system, with a high death-rate. This was, happily, superseded by the more rational plan of stimulating with ammonia &c., accompanied by the cold douche, leading to a diminished mortality; but it remained for Dr. Waller to treat the disease by a mode that has been attended by still more satisfactory results. There are some medical officers in India who hold the opinion that "insolation" (called also "ardent fever," "thermic fever," "heat apoplexy," "heat asphyxia," "coup de soleil," "sunstroke") is caused by *heat plus* (in many instances) malaria; the former being the exciting cause, which developes the operation of the latter. It is certainly very remarkable that heat *alone** should produce the two directly opposite conditions of "coldness† of surface with clammy perspiration," and "pungent heat‡ of skin with dryness." Dr. H. C. Wood believes that "lowered temperature, like elevated temperature, paralyses the nervous matter, which has been so constituted as to perform its functions on a certain caloric level." The efficacy of quinine in reducing the temperature to this level is very striking. The last of the three cases which occurred in the Bristol Infirmary in July last§ affords ample evidence in favour of the utility of the drug. All were, clearly, cases of "insolation," though only in the third is the existence of the characteristic pungent heat of skin recorded. No allusion is made to the state of the surface in the second case, and in the first there was *free perspiration*.‖ It is noteworthy that the termination—death in two cases, and recovery in one—was alike rapid in all. In No. 1, death occurred within seven hours; in No. 2, in twenty minutes; in No. 3, although the patient (aged fifty-five) was ten years older than one of the sufferers, and twenty years older than the other, the disease—quite as pronounced as in them—yielded to the influence of thirty grains of quinine¶ in less than an hour and a half! Dr. H. C. Wood** also bears testimony to the utility of the remedy in "thermic fever" ("insolation"). Doubtless, had it been tried in cases Nos. 1 and 2 in the Bristol Infirmary equally good results, *ceteris paribus*, would have been seen, at any rate in No. 1. For cases of collapse, with cold skin, quinine is, of course, quite unsuited. The individual is knocked down and completely prostrated, as in the collapse of cholera; and benefit could not be expected from a large dose of quinine, which indeed, judging from the occasional physiological effect of such a dose, might *add* to the prostration and extinguish the little life that is left. *How* quinine acts is a subject for further inquiry. It is usually regarded, speaking generally, as a nervine tonic. Mr. W. H. T. Power thinks that it relieves congestion of the capillary†† vessels which press on sympathetic nerves. And Mr. Henry M. Chute recognises in it "an antipyretic remedy of speedy action." Whatever be the true pathology of "sunstroke," and whatever the *modus operandi* of quinine in curing it, it is to Dr. Waller that the profession is indebted for the demonstration of this therapeutical value of the drug. A knowledge of the *fact* that insolation will yield to quinine in large doses (*plus* cold to the surface and stimulants), with almost the same certainty that "intermittent fever" or "periodic neuralgia" will, is one that cannot be too widely propagated for the benefit, especially, of European troops in tropical climates.

I have not seen Dr. Hall's paper, after the perusal of which (though not apparently in consequence of it) Mr. H. M. Chute used the quinine hypodermically in case No. 3 at the Bristol Infirmary, and it *may* be that Dr. Hall there gives due credit to Dr. Waller. Or does Mr. Chute merely claim for him (Dr. Hall) priority in this *mode* of administering the drug? It certainly is the most effective and the most economical, and secures the desired result the most speedily. The *neutral* sulphate of quinine should always be used for hypodermic injection, as it dissolves readily in water (one grain to twelve minims) without the aid of any acid, the presence of which might cause irritation of the skin and troublesome boils. I am induced to mention this as, in the case above referred to, the quinine was dissolved in one drachm of dilute sulphuric acid, of which about fifteen minims were introduced into the tissues in various parts of the body.

I remain, Sir, yours truly,
C. R. FRANCIS, M.B. Lond.,
Surgeon-General, H.M.'s Indian Army (Retired).

Sutton, Surrey, Nov. 8th, 1876.

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* Doubtless the condition of the *nervous* system and the state of health of the individual has much to do with the result. The experiments and cases quoted in Sir Thomas Watson's Lectures (see vol. i., pp. 87, 88, &c.) show that, provided there be free perspiration from the skin, and that the mucous membrane of the air-passages be moist, a very high temperature may be borne with impunity. If these conditions be absent, death will speedily follow, as in the case of Sir Benjamin Brodie's rabbit, which succumbed at once to the accumulated heat. But in some instances, as in intoxication, impure air, &c., their presence will not prevent a fatal result.

† For this condition Dr. H. C. Wood advocates the use of the *hot* bath, with moderate doses of whisky and ammonia.

‡ For this (the genuine "insolation" or "thermic fever") Dr. Wood prescribes, with Dr. Waller, the *cold douche* and quinine (see *Medical Times and Gazette* of Sept. 23rd, 1876).

§ See THE LANCET of July 29th, 1876.

‖ Cases of "heat exhaustion," with elevated temperature, quick pulse, hot *moist skin*, great debility, and a tendency to coma, are met with sometimes in the hot weather in India. These are modified cases of "insolation."

¶ The five grains which were *injected* would correspond to four times the quantity swallowed, and ten grains in addition were subsequently *thus* taken.

** THE LANCET of August 26th, 1876.

†† Through the vaso-motor nerves.

A ROMAN SUPERSTITION.

THE Roman populace believes that when a cardinal dies, other three cardinals immediately fall ill, and soon follow him to the grave. This superstition, which is of very old standing, was curiously verified on the 5th inst., the day on which Cardinal Antonelli succumbed to his painful malady. Almost simultaneously Monsignor Patrizi, the Cardinal Vicar, and Cardinals Capalti and Bizzarri had each a paralytic seizure, and their lives are still despaired of. Such a coincidence will go far to keep up a superstition, which, like most beliefs of the kind, is explicable on quite natural grounds. As a rule, cardinals are well-stricken in years, and this rule has rather been the prevalent one of late, as the balance of parties in the Roman Curia is so close that it is considered politic to replace its members at short intervals, and accordingly to elect them at an age and in a condition of body not compatible with longevity or the power of giving trouble.

An Enquirer.—The vacancies on the General Medical Council next occurring are those of the Queen's University in Ireland and the Royal College of Surgeons in Ireland. Sir Dominic Corrigan's term of office will expire in January, and Mr. Rawdon Macnamara's in February, 1877.

Mr. R. Weaver is thanked for his offer.

MEDICAL ATTENDANCE ON CLUB PATIENTS.

To the Editor of THE LANCET.

SIR,—In answer to the appeal to the profession made by "Hibernian," I am happy to enlighten him so far as I have been experienced.

In all cases where illness or accident has been occasioned through drink, and in those of venereal disease, sick pay has never been allowed; all benefits of the club have been forfeited, and never once has any demur been made to my charging in the usual way, as a matter quite distinct from the club. The rules of every society should be very clear and definite upon the points at issue, which does not appear to obtain in the Lodge of Odd Fellows in question, where the bye-law only goes so far as to state that "any member suffering from the effects of an accident received while drunk is not entitled to sick pay." This is a meagre way of putting it. The Judge of a County Court would undoubtedly be ruled in his decision by precedents and by what is *implied*—if no more—in the book of regulations given to every member at his initiation. If "Hibernian" will probe into the sentiments of the Court of which his patient is a member, I will not hesitate to say he will find it is most distinctly a declared understanding by all that "No" is the answer to all the questions put by him.

In the book I have before me, of Laws regulating a Lodge of Odd Fellows, is the following:—"Loss of benefits. That should any member receive bodily injury by wilfully exposing himself to danger by habitual intoxication, by fighting, wrestling, or by the venereal disease, he shall be excluded *all* benefits of the Society."

To quote from Rules of a Court of Foresters, there is:—"Disqualification of benefits. No member shall receive benefits from the funds of this Court for any hurt or illness occasioned by intoxication," &c. In another Court the law is:—"No member shall be allowed sick pay *or medical assistance* whose sickness is proved to have been brought on by immoral or disorderly conduct."

I would advise your correspondent to write to the Grand Lodge. A favourable reply could then be made use of in the County Court.

I remain, Sir, yours obediently,
Emsworth, Nov. 13th, 1876. F. H. W. T.

To the Editor of THE LANCET.

SIR,—In answer to your correspondent, "Hibernian," as to the treatment of members of Odd Fellows Lodges for illegitimate complaints, my book of rules, clause 38, states:—"Any member being rendered incapable of following any employment by any *immoral* or *disorderly conduct*, or by provoking or engaging in wanton quarrels or disputes, shall not be entitled to the sick benefit," &c. This wording answers your correspondent's questions, and brings delirium tremens or any accident met with while drunk, or venereal disease, under the term immoral conduct, thus debarring the member from sick benefit. The surgeon attends him as an outsider, and is entitled to charge his fee accordingly for any of such illnesses.

Yours truly,
F. A. PURCELL, M.D.
Welbeck-street, Cavendish-square, Nov. 15th, 1876.

DEATH REGISTRATION.

THE Irish Medical Association have suggested, in case a proposed Bill for the new Registration of Births and Deaths should become law, that no dead body shall be buried, under a penalty of £10, until after the body has been registered, and a certificate of same, signed by the registrar, has been presented to the person who buries or performs any funeral or religious service, except that a coroner, after holding an inquest, may authorise the body to be buried before registry of the death. If this suggestion were carried out, and it is one we have advocated on more than one occasion, death statistics in Ireland would be reliable, which at present they undoubtedly are not.

Radius.—Sutton's "Volumetric Analysis" will give our correspondent the information he requires in regard to water analysis. Sulphur fumigation is best after infectious disease. Mr. Keates's apparatus, described in our present issue, is excellent and simple.

Delta.—Sutton's Manual of Volumetric Analysis.

Hounslow.—The question is one entirely for the Board of Guardians and the Local Government Board. Under the circumstances they would probably consent to our correspondent living within fifty yards of the district.

L.R.C.S. (Hackney.)—Gray's Anatomy, by Holmes; Kirkes' Manual of Physiology; Erichsen or Bryant's Surgery; with Paget's Lectures and Wilks's Manual of Morbid Anatomy.

M.B. and C.M. shall have an answer next week.

"A NICE DERANGEMENT OF EPITAPHS."

SOME extraordinarily worded certificates of death are given occasionally in the United States, as shown by the Returns of the Boards of Health of the various cities. Thus a "lady physician" lately filled up a form as follows:—"This certifies that a beby boy died on the born day of Febbery, 1876. Cause of death, born." Should it be intended to issue a new nomenclature of diseases in this country, the following names enumerated among the causes of death may afford a hint to its compilers:—"Cancrum," "canker and spasms," "lack of vetality," "lack of vilality," "daeth barne," "canker humer," "swallowing," "lung diss," "canther of the bowels," "scharlctena," "chituss."

VACCINATION WITH GLYCERINED LYMPH.

To the Editor of THE LANCET.

SIR,—I have read with great interest your very practical leading article of Oct. 28th on the probable inadequacy of the present lymph supply to meet the demands of a Small-pox Epidemic, and likewise the valuable paper of Dr. Stephen Mackenzie in your issue of Nov. 4th on the use of glycerined lymph. As I have systematically carried on revaccination with glycerined lymph for the last four years, and during that time have operated upon several thousands of adolescents with marked success, I can most fully confirm all that Dr. Mackenzie says in its favour.

In a pamphlet recently issued (Statistics of Vaccination at Greenwich, published by Messrs. Churchill) I have already endeavoured to direct attention to this subject.

The idea of mixing glycerine with lymph arose in the following manner: During the small-pox epidemic of 1871-72, Mr. G. W. Armstrong, Surgeon to the Royal Hospital-School and Royal Naval College, Greenwich, applied to me for lymph to revaccinate the whole of the boys in the school, in number at that time about 800. My supply of lymph being inadequate for the purpose, it occurred to us jointly to increase the quantity by diluting it with glycerine. This we did, mixing the lymph and glycerine in equal proportions in a watch-glass, and the result exceeded our expectations. The arms "took" splendidly, far better, in fact, than those vaccinated without glycerine. Since that period we have kept the school revaccinated by doing all the boys immediately on admission. The earlier operations were very imperfectly recorded; but since 1872 we have accurately tabulated the results as to the number and character of the vesicles produced, note being at the same time taken of the number and character of the cicatrices left by primary vaccination. I find from the register to date that 1427 have been revaccinated; and of these, 1387 have been successful and 40 unsuccessful, a failure of 2·8 per cent.

In August, 1872, H.M.S. *Firgard* was moved from Woolwich to Greenwich, and since that date all the recruits for the navy received on board that ship have been revaccinated by me. They amount to 3340; of these, 3578 have been successful and 262 unsuccessful, a failure of 6·82 per cent.

The two series combined give 5267 revaccinations; 4965 successful and 302 unsuccessful, a failure of 5·73 per cent.

The idea of glycerining lymph occurred to Mr. Armstrong and myself spontaneously. We had never happened to see any correspondence on the subject, and were unaware until Dr. Mackenzie's paper appeared that it had been so extensively practised in Prussia and elsewhere. Hitherto we have not ventured to carry dilution so far as, as stated by Dr. Mackenzie, has been done by others, and we have never added any water.

Being somewhat uncertain whether in thus diluting lymph we were not at the same time lessening its efficacy, we have narrowly watched the results, and have been perfectly satisfied with them; for when it has happened that a boy had no marks of previous vaccination, and presumably therefore had never before been vaccinated, the result has almost invariably been the production of perfectly typical Jennerian vesicles.

None of these cases have hitherto, as far as I am aware, been submitted to the crucial test of the efficacy of their vaccination—viz., actual contact with small-pox. But the school passed through the 1871-72 epidemic untouched, and no small-pox has since occurred therein, although the boys number just upon 1000. I am very glad to learn from Dr. Mackenzie's paper that the efficacy of glycerined lymph was so completely established during the late Franco-Prussian war, when small-pox was raging epidemically.

My experience as far as it goes is unfavourable to the employment of glycerined lymph for the primary vaccination of young infants. I say as far as it goes; for I have only tried it once, and then only on three infants, but these three turned out badly; all the vesicles on the eighth day were broken, as if the tops had been rubbed off. Of course at my station infantile vaccinations are always done direct from arm to arm, so that I cannot have much experience there in the use of preserved lymph, whether glycerined or not.

I remain, Sir, yours truly,
Greenwich, Nov. 8th, 1876. J. P. PURVIS, Public Vaccinator.

To the Editor of THE LANCET.

SIR,—I see in your journal of *Nov.* 4th an article by Dr. S. Mackenzie on the use of glycerined lymph. Having used it very successfully during the last epidemic of small-pox, I can speak most highly of its value. The lymph keeps much better, never gets dry in tube, and never fails in its action. The plan I adopted was to take the lymph from the arm in the ordinary tubes; blow the contents of all on a small piece of glass; then with a glass rod place a drop of glycerine twice or thrice the size of the drop of vaccine; mix thoroughly with the rod, and take up in the tubes, and seal the ends in the usual way. In preparing these tubes, if there is a likelihood of requiring to vaccinate a large number, I would advise a small quantity only to be put in each tube. In this way I was able all through the epidemic of three years ago to have plenty of lymph on hand. Only once did I run short, and then I had only one tube, not very well filled, to vaccinate a family of five. I therefore at the time blew the contents of the tube (already diluted with two parts of glycerine) on a small piece of glass, and added an equal part of glycerine, and revaccinated the whole with success. I have not used this plan much since the pressure to revaccinate passed away; but I am sure that the glycerined lymph keeps better than the ordinary lymph, and had it not been for the little extra trouble I should have always adopted it. I may add that I have not tried the addition of distilled water also.

I am, Sir, yours truly,
JOHN WOODMAN, F.R.C.S.,
Public Vaccinator and Surgeon to the City Workhouse, Exeter,
Consulting Surgeon to the Exeter Dispensary.
Exeter, November 11th, 1876.

Inquirens.—There is no legal offence. A. has a right to do what he has done; but it would have been better if he had not done it, without, at least, the consent of B.

PRIVATE SCHOOLS OF MEDICINE.

To the Editor of THE LANCET.

SIR,—Your valuable article on "Private Schools of Medicine" in THE LANCET of the 28th ult. requires very little further answering from me after Mr. Cooke's reply. On our own side I would only remark that, by a reference to our advertisement or inspection of the school, it will be seen that it has not been opened for the purpose of "cramming," or to substitute that which is provided at the different hospitals, but simply to afford auxiliary and supplemental aid. No one can honestly gainsay what you advance, "that any scientific knowledge worthy the name nowadays can be obtained only by *hard* personal work in well-arranged museums, laboratories, and dissecting-rooms," in addition to which private rooms for study are supplied at this school, and tutorial instruction under the superintendence of hospital lecturers and teachers, as you will find by the enclosed prospectus. But you may say we are more ambitious than Mr. Cooke, and I would honestly confess we are,—that our school, although not recognised by the Medical Council as *de jure* a separate and independent institution, is *de facto* more than a preparatory one. It will afford supplementary instruction to those who require more than they have got, or can get, at the different hospitals to successfully enable them to encounter the different and more difficult examinations of the present day. *Tempora mutantur et nos mutamur in illis.* A crammer might in days gone by pass a man; but now genuine practical teaching and extra labour are demanded; and let me ask the head assistant-surgeon and late demonstrator at Westminster Hospital if his great success for the last three years has not been teaching advanced, not "preparatory, students." It is not our intention to adopt the cramming mode "by carefully going through the subjects every three months."

I am, Sir, faithfully yours,

C. T. PEARSON.

School of Medicine, Stamford-street, Nov. 8th, 1876.

ERRATUM.—In the list of gentlemen appointed medical officers to the Post Office, published on page 668, the name of Dr. J. H. Hooper should be substituted for that of "Alfred Brown, M.R.C.S.," as medical officer for the Wandsworth district.

COMMUNICATIONS not noticed in the current number will receive attention in our issue of the ensuing week.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Routh, London; Mr. E. C. Jackson, London; Mr. S. Gamgee, Birmingham; Mr. Tait, Birmingham; Mr. Biggs, Rugby; Dr. Bond, Gloucester; Mr. R. Hall; Messrs. Flood and Co., London; Dr. Lindsay, Mickleover; Dr. Bozeman, Paris; Mr. Cameron, Glasgow; Mr. Hay, Wolverhampton; Mr. Hardman, Blackpool; Messrs. Livingstone, Edinburgh; Mr. Sheun, Croydon; Mr. Fosbroke, Birmingham; Dr. Purcell, London; Mr. White, Barnsley; Mr. Whittall, London; Dr. Hopkins, Llantrisant; Dr. Lewis, Wakefield; Mr. Doran, London; Mr. Wrixon, Sarratt; Mr. Darnly, Leith; Dr. Will, Aberdeen; Dr. W. Lewis, London; Mr. Fox, Clifton; Admiral Hall, London; Mr. Thain, London; Dr. Wood, Cranbrook; Mr. F. G. Brown, London; Mr. Sheard, Putney; Mr. Woodman, Exeter; Mr. Fisher, London; Dr. Edis, London; Mr. Lucas, Nemach, India; Dr. Ginders, Normanton; Mr. Orchard, Appleton; Mr. Myers, London; Mr. Ingpen, Putney; Dr. Rae, London; Dr. Smith, Oakham; Dr. Coates, Salisbury; Dr. Hadaway; Dr. Roberts, Manchester; Messrs. Corbyn and Co., London; Mr. Larkin, London; Messrs. Mason and Co.; Mr. Thomas; Dr. Skerritt, Clifton; Mr. Leith; Mr. Collier, Barnstaple; Mr. Weisslinger; Mr. Chater; Dr. Thomson; Mr. Thacker; Mr. Vance; Mr. Robertson; Mr. Richards, Dumbarton; Dr. Evans, Cardiff; Dr. Hebblethwaite, Bawtry; Dr. Jones, Huddersfield; Mr. Maclure; Mr. Stevens, London; Dr. Paul, Glastonbury; Dr. Pigeon, Clifton; Dr. D. J. Williams; Mr. Ottaway; Dr. Hime, Sheffield; Mr. Balfour, Cambridge; Dr. Savage, London; Mr. Scott, Penrith; Dr. Daglish, New Romney; Mr. Kimpton; Mr. Jones; Mr. Charles, Bedford; Mr. Ede, Newport; Mr. Chaloner, Shrewsbury; Mr. M. Mathewson, London; Mr. R. Trewby, Stratford; Mr. Newton, Weymouth; The Director-General of the Medical Department of the Navy; The Editor of the *Whitehall Review*; Constant Reader; L.R.C.P.; Inquirens; The Registrar-General; F. L. S.; Alpha; L.R.C.P.; E. M. S.; Inquirer; F. H. W. T.; Delta; A Victim; Constant; X.; L.R.C.S., Hackney; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Jennings, Ipswich; Mr. Waugh, Cuckfield; Mr. Nestle, Barbican; Dr. Cobbold, London; Messrs. Harvey and Reynolds, Leeds; Mr. Davies, Llandrindod; Dr. Dickson, Hull; Messrs. Cox and Son, Brighton; Mr. Paris; Mr. Thomson, Chatham; Mr. Harris, Hackney; Mr. Elliott, Manchester; Mr. Hughes; Dr. Macadam, Edinburgh; Dr. Taylor, Jersey; Mr. Binks, Wakefield; Dr. Iliffe, Kendal; Mr. Farr, Dunstable; Mr. White; Mr. Vevers, Huddersfield; Mr. Young; Mr. Kennard, Lambourn; Dr. Manly, Sierra Leone; Dr. Lush, Fyfield; Dr. Worger, Radstock; Dr. Hales, Holt; Mr. Roberts, Festiniog; A. B., Northampton; Medicus, Hereford; Omega, Crowland; Forceps; Medicus, Whitehaven; Y. M.; L.S.A.; L.R.C.P., Fairford; H. M., Bayswater; L. M.; Surgeon, Exeter; Alpha, Sheffield; A. W.; Surgeon, Sheffield; M. W. B.; D. M., B. Hull; M.R.C.S., Sheffield; C., Hull; Medicus, Wickham Market; Thetis, Bridlington; M.D., Ipswich; Statim; Spes.

Western Morning News, Newcastle Chronicle, Liverpool Post, Welshman, Surrey Advertiser, Metropolitan, Manchester Guardian, Hampshire Post, Dundee Evening News, Brisbane Courier, Bournemouth Visitors' Directory, Record, Western Mail, Canada Lancet, and *Sussex Daily News* have been received.

METEOROLOGICAL READINGS

(Taken daily at 8 a.m. by Stewart's Instruments.)

THE LANCET OFFICE, Nov. 16TH, 1876.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia. in Vacuo	Max. Temp. Shade	Min. Temp.	Rain-fall.	Remarks at 8 A.M.
Nov. 10	30·13	E.	35	37	...	38	33	...	Foggy
,, 11	30·09	S.E.	33	35	...	39	32	...	Overcast
,, 12	29·28	E.S.E.	40	42	...	47	33	0·32	Raining
,, 13	29·48	N.W.	44	45	...	49	33	0·50	Foggy
,, 14	29·60	S.E.	48	49	...	62	43	0·07	Foggy
,, 15	29·53	WNW	55	56	...	60	47	0·21	Raining
,, 16	29·43	S.	53	57	...	...	51	0·16	Overcast

Medical Diary for the ensuing Week.

Monday, Nov. 20.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day and at the same hour.

ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

MEDICAL SOCIETY OF LONDON.—8½ P.M. Dr. Lawson: A casual communication.—Mico-photographs of the Blood-corpuscles, by Dr. Woodward, of Philadelphia. — Dr. Dick (paper of the evening), "On Division of Urethral Strictures by Cutting."

Tuesday, Nov. 21.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

STATISTICAL SOCIETY. — 7½ P.M. Opening Address by the President.—Dr. Mouat: "Report on the Ninth International Statistical Congress, held at Budapest from 1st to 7th September, 1876."

PATHOLOGICAL SOCIETY OF LONDON.—8½ P.M. The following Specimens will be exhibited:—Sarcoma of Thigh; Diffuse Suppurative Inflammation of Mediastinum; Primary Contracting Scirrhus of Liver; Epitheliома of Bladder secondary to long-standing Stricture; Concretion in Vermiform Appendix removed through Incision in Back; Aneurism of Thoracic Aorta (two cases); Unobliterated Ductus Arteriosus; Fracture by Muscular Action of both Sesamoid Bones of Forefeet of a Horse; Stricture of Œsophagus; Dermoid Ovarian Tumours removed from patients aged twelve and twenty-one years; Fatty Tumour; Perforating Ulcer of Foot, with Shortening; Circulation Arterial from White Swelling of Knee; Perforating Ulcer of Endocardium; Ossification of Axillary Artery following Injury; Spontaneously Fractured Vesical Calculi; &c. &c.

Wednesday, Nov. 22.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

HUNTERIAN SOCIETY.—8 P.M. Mr. Jonathan Hutchinson, "On Colles's Law with reference to the Transmission of Syphilis."

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY. — 8½ P.M. Mr. Cartwright (President), "On Teething and its Complications."—Mr. Edgelow, "On a remarkable Case of Maxillary Disease."—And other communications.

Thursday, Nov. 23.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Friday, Nov. 24.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

CLINICAL SOCIETY OF LONDON.—8½ P.M. Sir W. Jenner, "On a Case of Leukæmia treated by Phosphorus." — Dr. Gowers, "On a Case of Lymphatic Leukæmia treated by Phosphorus."—Dr. Greenfield, "On a Case of Hodgkin's Disease, with Excess of White Blood-corpuscles, treated by Phosphorus." — Mr. Brodhurst, "On Cases of Subcutaneous Section of the Neck of the Thigh-bone."

Saturday, Nov. 25.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

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